Appendix R
Public and Agency Comment

R-1
Correspondence Since April 2002
U.S. Coast Guard Correspondence
U.S. Army Corps of Engineers Correspondence
Federal Aviation Administration Correspondence
State and Local Elected Officials Correspondence
Maritime Pilot Associations Correspondence
Correspondence Sent to Multiple Parties
Alaska Department of Transportation & Public Facilities Correspondence
State and Local Agency Correspondence

R-2
Gravina Access Project Alternatives Evaluation Summary Report: Public Comment Summary, June 2002
Public and agency issues summary, and selected agency correspondence. The full report is on file with ADOT&PF.

R-3
Gravina Access Project Scoping Summary Report Supplement, October 2000
Public and agency issues summary, and selected agency correspondence. The full report is on file with ADOT&PF.

R-4
Gravina Access Project Scoping Summary Report, December 1999
Public and agency issues summary, and selected agency correspondence. The full report is on file with ADOT&PF.

R-1
Correspondence Since April 2002

U.S. Coast Guard Correspondence
U.S. Army Corps of Engineers Correspondence
Federal Aviation Administration Correspondence
State and Local Elected Officials Correspondence
Maritime Pilot Associations Correspondence
Correspondence Sent to Multiple Parties
Alaska Department of Transportation & Public Facilities Correspondence
State and Local Agency Correspondence

U.S. Coast Guard Correspondence

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

P.O. Box 25517
Juneau, Alaska 99802
Staff Symbol: (mon)
Phone: (907) 463-2268
FAX: (907) 463-2273

16590
3/26/99

Michael L. Downing, P.E.
Director, Statewide Design & Engineering
Services Division
Alaska Department of Transportation
and Public Facilities
3132 Channel Drive
Juneau, Alaska 99801-7898

Dear Mr. Downing:

The Coast Guard accepts your invitation to participate as a Cooperating Agency in the preparation of an Environmental Impact Statement (EIS) for the Ketchikan-Gravina Island Bridge project. It is my understanding that the proposal involves the spanning of Tongass Narrows to connect the City of Ketchikan with the Ketchikan International airport located on Gravina Island.

We request that the EIS contain a separate section discussing navigational impacts of your proposal. Enclosed is a listing of questions that once answered should assist you in describing present and prospective navigation of the entire waterway as well as for the reach through each of the bridge sites. The answers to the questions should also help you determine the impacts of the bridges as well as navigational impacts during construction. As I stated in a recent telephone conversation, a public hearing is highly encouraged in the very near future to solicit additional information on navigational issues by the users themselves. It is my understanding that you are in the process of hiring a consultant to handle these types of events.

The Coast Guard issued a Public Notice dated July 21, 1993 soliciting comments on the navigational clearances needed to safely accommodate existing as well as potential users of the waterway. Several cruise ship operators responded at that time that the trend in their industry indicated larger ships and that proposed bridges should be high enough to accommodate them. In addition concerns were raised by the operators of the Alaska Marine Highway system about the increased congestion in the east channel if your plans involve closing the west channel to most commercial traffic. Recent information indicates that a cruise ship with a 208' height plans to use this waterway in the very near future. Our office plans to issue another Public Notice to confirm this as well as acquire up-to-date information on the type, size, and clearances required by the various vessels that may be impacted by your proposed bridges.

I have enclosed navigational data forwarded by our Marine Safety Detachment located in Ketchikan, that may be helpful. They are part of an organization of vessel operators who recently developed operating guidelines for vessels operating on Tongass Narrows in an effort to enhance the safety of navigation on this congested waterway.

I look forward to assisting you in gathering additional information concerning impacts to navigation associated with this important project. If you have any questions, please contact me at 463-2268.

Sincerely,

J. N. HELFINSTINE
Chief, Bridge Section, Waterways
Management & Navigation Safety Branch
U. S. Coast Guard
By direction of the Commander

Enclosure: (1) Navigational Evaluation
(2) Marine Safety Detachment Ketchikan ltr dated 03/08/99
(3) Waterway User Guide
(4) Tongass Narrows Voluntary Waterway Guide
(5) General Operating Guidelines for all Vessels Operating on Tongass Narrows

Fax Sheet

A Gateway to the Future
Gravina Access Project

Date 10/14/99

Number of Pages (includes cover page) 1

If you do not receive all the pages, please call 907-586-9833 as soon as possible.

Message To

Name J.N. Helfinstine	Fax number 907-463-2273
Firm U.S. Coast Guard	

cc:

From

Name Al Steininger	Job Number 07072-144-249
Telephone 907-465-4411	File Number 4.2/4.3/4.4

As you know, the agency scoping meeting for the Gravina Access Project was held September 27, 1999 in Juneau with teleconference links to Ketchikan, Sitka, and Anchorage. At this meeting, the Alaska Department of Transportation and Public Facilities (DOT&PF) identified an expedited review period by requesting that agencies provide comment on the project by October 13, 1999. It has come to my attention, however, that this time period is not adequate for some agencies. We would really appreciate receiving your comments as soon as possible, but in response to some agencies' concerns about the schedule, the DOT&PF has extended the deadline to October 27, 1999.

Ongoing agency involvement in the development of the Gravina Access Project is very important to the project team. If you have any questions or concerns about this schedule, please call Mark Dalton, HDR Alaska project manager, at 586-9833 or (888) 520-4886 outside Juneau.

Thank you for your participation in this project.

Al Steininger
Project Manager

STATE OF ALASKA

TONY KNOWLES, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

6860 GLACIER HIGHWAY
JUNEAU, ALASKA 99801-7999
PHONE: (907) 465-4428
TEXT: (907) 465-4647
FAX: (907) 465-4414

November 4, 1999

File Copy 07072 - 144
File Topic 1 4.1.2 ☑
File Topic 2 7.4.11 ☐
File Topic 3 _____ ☐
File Topic 4 _____ ☐
File Topic 5 _____ ☐
Chron # _____

Mr. Jim Helfinstine, Chief
Bridge Section Waterways
Management & Navigation Safety Branch
U.S. Coast Guard
P. O. Box 25517
Juneau, AK 99802

Dear Mr. Helfinstine:

We are in the process of completing the scoping phase for the Gravina Access Project. We appreciate your review of the Marine Navigation Conditions Summary Technical Memorandum dated October 1999, prepared by The Glosten Associates. I am glad you found the document to be a good overview of the navigation issues for the Tongass Narrows area. The input of the U.S. Coast Guard is an important part of the National Environmental Policy Act (NEPA) process for this project.

We have reviewed your March 26, 1999 comments to Mike Downing in light of the information presented in the navigation memorandum. We are aware that some of your initial comments were not specifically answered in the technical memorandum. Once the range of reasonable alternatives are identified as part of the NEPA document, we will then be better able to address those comments related to a specific build alternative at specific locations. We will revisit your comments once the alternatives evaluation process has begun.

Thank you for your continued cooperation on this project.

Sincerely,

Al Steininger, P.E.
Project Manager

Cc: Mark Dalton, HDR Alaska, Inc.

HDR

February 25, 2000

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File Topic 4 _____ ☐
File Topic 5 _____ ☐
Chron # _____

John Mikesell
District Bridge Program Administrator
Commander (oan)
13th Coast Guard District
Jackson Federal Building
915 2nd Avenue
Seattle, WA 98174-1067

Re: Gravina Access Project

Dear Mr. Mikesell:

Jim Helfinstine asked that I send you some project overview materials and copies of the cross section engineering drawings for the Gravina Access Project. Attached you will find our first two newsletters which provide a reasonable overview the project. In addition, I would like to draw your attention to the project web site, which is located at www.gravina-access.com, for additional information. You should also be receiving copies of the requested drawings from our office in Seattle under separate cover

Please call our office at (907) 586-9833 if you have any questions.

Sincerely,

John McPherson
Project Planner

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File Topic 1 4.2.1 ☐
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File Topic 3 _____ ☐
File Topic 4 _____ ☐
File Topic 5 _____ ☐
Chron # _____

Attachments.

HDR Alaska, Inc.

Employee Owned

712 W. 12th Street
Juneau, Alaska
99801

Telephone
907 586-9833
Fax
907 586-9834

Dalton, Mark

From: Helfinstine, James [JHelfinstine@CGAlaska.USCG.mil]
Sent: Monday, March 20, 2000 4:31 PM
To: 'Dalton, Mark'
Subject: RE: Gravina

Rob, thanks for the reply and input. I am forwarding your comments to the consultant point man, Mark Dalton. My counterpart and I are planning to do a couple day site visit the week of May 8-12 (tentative) and would be glad to hook up with you or your rep. The consultant is at the point of narrowing the proposals. We are trying to reduce the crowd (sort of speak) of waterway users that we will have direct contact with until the proposals are reduced. At this point we prefer to engage those who will be directly impacted by the width/height restrictions imposed by a bridge, namely the cruise line folks. Once we get to the 2nd phase and have a realistic field of proposals, we will definitely get ALL the waterway folks involved to get their input on each. I will make sure that you are CC on all correspondence from here on out because of the critical part MSO has on this project and the contacts you've already developed. Let's get together and discuss a game plan so this project doesn't start wagging us. Thanks.

-----Original Message-----
From: Lorigan, Robert CDR
Sent: Monday, March 20, 2000 3:37 PM
To: Helfinstine, James
Cc: Clark, Pat LT
Subject: RE: Gravina

Jim,
Thanks for keeping me in the loop. One comment on your e-mail to Mr Dalton. There is a voluntary user's guide for Tongass Narrows, I can provide you a copy. It was developed primarily for cruise ship operations in the congested waterways of SEAK. But what I want to make sure of is an understanding that there is a host of other waterway users (tugs/tows, AMHS and foreign freighters) that use the waterways and don't necessarily subscribe to the voluntary guidelines. The access designs will impact traffic patterns for them as well and potentially could further congest the waterway.
Pls keep me advised of you site visits. I would like to have MSO representation either myself or the supervisor in Ketchikan.

Also just for your information and as the project moves forward you should know that there are various groups dealing with waterways management issues (Gravina being one of those). At some point an informational brief might be recommended and they are a very good source of local knowledge/insight.:
The Field Commanders Council (FCC, federal agencies (CG, NOAA, ACOE, oan, buoy tender CO, MSO), Federal Pilots Advisory Council (FEDPAC, made up of reps from both pilots assoc, AMHS and MSO), Marine Safety Task Force (cruise ship reps, agents, and the MSO), Tongass Narrows Working Group (focused on temporary regs for 7 knot rule in Tongass Narrows, includes CG and local Ktn public and city)
There is some of crossover amongst the groups but each has a particular focus.
I'd be happy to give you a more detailed description of the groups and when we meet....very easy to add you to the e-mail listing.
Regards,
Rob

-----Original Message-----
From: Helfinstine, James

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File Topic 1 4.2.1 ☑
File Topic 2 7.5.195 ☐
File Topic 3 _____ ☐
File Topic 4 _____ ☐
File Topic 5 _____ ☐
Chron # _____

Dalton, Mark

From: Helfinstine, James [JHelfinstine@CGAlaska.USCG.mil]
Sent: Monday, March 20, 2000 1:30 PM
To: 'Dalton, Mark'
Cc: Mikesell, John; Potdevin, James CDR; Lorigan, Robert CDR
Subject: RE: Gravina

Mark, send me an e-mail with the points raised during the recent meeting between HDR reps in the Seattle area and my counterpart at the 14th Coast Guard District. I will address each. I did in fact have a lengthy discussion with John Mikesell last week and brought up the points you and I had discussed. As I stated earlier John's role in this project is as a consultant. Of particular interest to you, perhaps, is further input on the following items that were discussed:

1. The Coast Guard would not accept any bridge design that would entail closing off Tongass Narrows.
2. Developing a one-way traffic scheme is not out of the question, but would have to be discussed,developed, and approved by of the Capt. of the Port, i.e. Marine Safety Office, Juneau (CDR Robert Lorigan). I understand that a voluntary one-way traffic scheme is already being utilized by the cruise line industry in Tongass Narrows.
3. The need to develop a modeling/simulated vessel movement study will not be decided until after John Mikesell and myself complete our field trip in May. We need to see the maneuverability restriction issues firsthand and discuss some of these issues with the S.E. Alaska Pilot, Ass.. They will have some valuable insight and input. John and I are still looking at the 2nd week of May to do our site visit with a follow-up in Seattle afterwards to meet with the cruise line reps..

In the future, let's send an e-mail or some other record to ensure that items discussed during meetings are noted and addressed. Thanks.

-----Original Message-----
From: Dalton, Mark [mailto:mdalton@hdrinc.com]
Sent: Saturday, March 18, 2000 6:01 PM
To: 'Helfinstine, Jim'
Subject: Gravina

Hello Jim-

If you have a moment on Monday please give me a call. I'm wondering if you had a chance to speak with John Mikesell about the Gravina Access Project. I just want to review some of the points he raised with our staff during the meeting in Seattle on Feb. 23.

Thanks,

Mark

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File Topic 1 4.2.1 ☑
File Topic 2 4.2.2 ☐
File Topic 3 7.5.19.5 ☐
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File Topic 5 _____ ☐
Chron # _____

Dalton, Mark

From: Helfinstine, James [JHelfinstine@CGAlaska.USCG.mil]
Sent: Friday, March 24, 2000 11:25 AM
To: 'Dalton, Mark'
Cc: Lorigan, Robert CDR; Mikesell, John
Subject: Proposed Site Visit to Ketchikan

Mark, as per our telephone discussion Weds. we need to narrow down a date for a site visit to Ketchikan. John Miksell and I have the week of May 15-19 open. I suggest the 16-17(Tues-Wed). This will include an aerial fly-over of the proposed crossings as well as getting together with a rep of each cruise line pilot groups that actually maneuver within the Tongass Narrows. If possible, I think it would be highly beneficial to get on one of the cruise ships to get a first hand look and appreciation for the restrictions imposed by each proposal. A day during the week with the most navigational traffic is crucial. This will be an informational gathering opportunity for the USCG/State/Consultants, not the general public or other groups. As you are aware, there will be opportunities to acquire input/information from the other players.

Once this is completed, I suggest that we meet with the Cruise line industry in the Seattle area as we had discussed earlier. I will work directly with you to make this happen. By the way, I was informed yesterday that a state rep (that includes the consultant, because you are representing them) can ride in the USCG helicopter we plan to utilize. I'll arrange that portion. It might require two separate flights if we go beyond a total of three of us....

We need to be a little flexible on the flight times, because we will be working around their scheduled training flights from the USCG Air Station, Sitka.

Perhaps we can meet with a few of the other players as a courtesy call or as an opportunity for you to provide them an update on the project. Thanks.

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File Topic 5 _____ ☐
Chron # _____

FILE 4.2.1

U.S. Department of Transportation
United States Coast Guard

Commander
Thirteenth Coast Guard District

915 Second Avenue
Seattle, WA 98174-1067
Staff Symbol: (oan)
Phone: (206) 220-7270
FAX: (206) 220-7285

16590
June 16, 2000

From: Commander, Thirteenth Coast Guard District
To: Commander, Seventeenth Coast Guard District (oan)

Subj: GRAVINA ISLAND ACCESS PROJECT - TRIP REPORT

Ref: (a) Your 16590 dtd 28 Feb 00

1. Reference (a) requested the temporary services of John Mikesell to assist in evaluating the impacts on navigation of a bridge structure proposed for construction by the State of Alaska across Tongass Narrows, at Ketchikan, AK. Pursuant to reference(a) Mr. Mikesell participated in a field trip conducted during the week of 15 May to familiarize all parties involved in project planning with the area and its unique navigational issues.

Enclosure (1) is Mr. Mikesell's trip report and recommendations.

M F Greene
G. F. GREENE
By direction

Encl: (1) Trip Report -Tongass Narrows

Copy: Mark Dalton, HDR Alaska
Larry Kyle, HDR Seattle
Roger Healy, Alaska DOT
CCGD17(o)
CCGD17(m)

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TRIP REPORT
TONGASS NARROWS
KETCHIKAN, AK

Prepared by John Mikesell CGD13 Bridge Program Manager

Waterway Description:

Tongass Narrows is a "Y" shaped body of water oriented in a southeast to northwest direction. It stretches from Nichols Passage on the southeast end to Guard Island on the northwest end. It is approximately 13 nautical miles in length and about 1/4 of a mile wide. It is bounded on the eastern side by Revillagigedo Island and on the west by Gravina Island. Pennock Island divides the southern portion of the Narrows into east and west channels. The cities of Ketchikan and Saxman are located on the eastern side of the Narrows and the Ketchikan Airport is located on the western side, opposite Ketchikan.

Cruise ship transits of Tongass Narrows, 15 May 2000:

The State of Alaska proposes a project to improve access across Tongass Narrows. Project alternatives under consideration include bridging, tunneling, and improved ferry service. Because bridging the waterway would require a Coast Guard permit, the Coast Guard is actively involved the planning phase of this project. Bridge alternatives under consideration include high and low level fixed structures and opening span structures. There are several alternative locations under consideration depending upon the type of structure selected. Cruise ships transit north and south through Tongass Narrows and call at the City of Ketchikan on their Alaska cruises. In order to gain prospective of the potential effects the various alternatives on cruise ship operations, transits of Tongass Narrows on cruise ships were arranged by the State's consultant for the project.

Observers participating in cruise ship transit exercise:

Mark Dalton, HDR Alaska, Project Manager for consultant
Larry Kyle, HDR
Roger Healy, Alaska DOT, Project Manager for state
Robert Lorigan, CDR USCG, D17 MSO Juneau
Jim Helfinstine, CGD17 BAP Manager
John Mikesell CGD13 BAP Manager

Vessels and S.E. AK Pilots participating:

M/V Ocean Princess - S.E. AK Pilot - Capt. Hans Antonsen
M/V Jubilee - S.E. AK Pilot - Capt. Bob Winter
M/V Ocean Princess - S.E. AK Pilot - Capt. Dale Collins
M/V Veendam - S.E. AK Pilot - Capt. Joe Homer

Boarded pilot boat at Daly Float, Ketchikan, at about 0330 and proceeded south through the east channel of Tongass Narrows. Rendezvoused with M/V Ocean Princess at approximately 0445 in Revillagigedo Channel at the Twin Island pilot pick up point, inbound to Ketchikan. After boarding and with Pilot Capt. Hans Antonsen at the conn, proceeded north, passing Hog rocks to starboard, Bold Island to starboard, Spire Island Reef to port, Cutter Rocks to starboard, and Potter Rock to starboard. Entered Tongass Narrows East Channel, with Pennock Island to port. Proceeded northwesterly passing through a 200-yard wide choke point in the channel bounded by green buoy #3 to port, marking California Rock and red buoy #4 to starboard, marking Idaho Rock. Passed Coast Guard Station to starboard and proceeded to Ketchikan cruise ship dock located on north end of Thomas Basin, making fast at about 0630.

Boarded pilot boat at Daly Float, Ketchikan, at about 0830 and proceeded northwesterly through Tongass Narrows to rendezvous with M/V Jubilee off Guard Islands. While proceeding to rendezvous, passed City of Ketchikan to starboard and Ketchikan Airport to port. Noted extensive floatplane use of entire area with takeoffs and landings occurring from multiple terminals throughout the area. The peak level of floatplane activity occurs in the summer with a reported 500 movements per day, making this one of, if not, the largest float plane operations in the world. Also noted was the extensive use of the waterway by commercial fishing vessels, tugs and barges, Alaska State ferry's, the Ketchikan Airport ferry, and miscellaneous recreational vessels of all sizes. Most of the traffic, including aircraft, was parallel to the waterway, i.e., in a north/south direction, but the airport ferry transits were of necessity perpendicular to the general flow of traffic. Compounding this traffic mix is commercial and private land based aircraft operations to and from the Ketchikan Airport. Approaching the narrowest part of the waterway, about 200 yards wide, bounded by the Ketchikan shipyard and a barge container terminal to starboard the airport ferry

landing to port, the pilot boat was required to lay to, in order to allow for passage of the incoming cruise liner M/V Veendam. After passage of Veendam, continued transit to rendezvous with M/V Jubilee north of Guard Islands. At approximately 1000, boarded M/V Jubilee inbound to Ketchikan with Pilot Capt. Bob Winter at the conn. Transited southeasterly passing Guard Islands to starboard, Pond Reef to port, Rock Point and Rosa Reef to starboard, and Ohio Rock, to port. From Peninsula Point, to port, and Lewis Point, to starboard, the channel narrows, maneuvering room is reduced and float plane activity increases. Ketchikan Airport, to starboard, and its associated ferry crossing, coincide with the locations of the Ketchikan shipyard and a container terminal, to port. Viewing this bottleneck from the bridge of a cruise ship is a real eye opener. No room for error, with no where to run and no where to hide if anything goes wrong. Fortunately, this passage was made under near perfect conditions of weather and traffic. The pilot voiced concern with the apparent unrestricted waterfront development in this area and its effect on navigation. Continued inbound transit past the airport, approaching Pennock Island. Altered course to port to clear Pennock Reef to starboard and sunken wreck marked with a buoy to port. Kept red buoy #4A to starboard and made fast to cruise ship dock aft of the M/S Veendam at about 1200. CDR Lorigan departed observation group for return to Juneau. Three cruise ships at dock; M/S Veendam, M/S Jubilee and M/S Ocean Princess

Boarded M/V Ocean Princess at Ketchikan cruise ship dock at about 1400, Pilot Capt. Dale Collins at the conn. Departed outbound to north for pilot debarkation area in vicinity of Guard Islands. Outbound transit reverse of and similar to inbound transit on M/V Jubilee. Area in vicinity of ferry crossing, airport, and shipyard presented similar challenges as inbound passage. Disembarked to pilot boat at about 1500 in vicinity of Pond Reef and returned to Daly Float, Ketchekan, at about 1545.

Boarded M/V Veendam at about 1730 for transit south to Twin Islands pilot drop off point, Pilot Capt. Joe Homer at the conn. As a favor to the observers, Capt. Peter Harris, Master of the Veendam, assumed the conn and agreed to transit south through the west channel between Pennock and Gravina Islands. This is not a normal route for large cruise ships, nor is it a recommended one. However, all conditions were favorable for the transit and Capt. Harris

wanted to demonstrate the feasibility/difficulty of the west channel route. The vessel was moored port side to at the pier, i.e., facing south. This required a 180 degree turn to starboard after clearing the pier, keeping red buoy #4A to port, followed by another 180 degree to port, keeping green buoy PR to port and avoiding Pennock Reef, to line up with the west channel. The Captain's skill combined with ideal weather conditions enabled these maneuvers to be completed with apparent ease, with only the junior officers on watch expressing concern for this departure from the norm. Proceeding southeasterly into the west channel, the vessel passed close aboard the steep face of Pennock Island between red light #4, to port, and green buoy #5, to starboard. During this passage, the junior officer monitoring the depth sounder was visibly agitated by the reduced clearances being recorded under the keel. The remainder of the west channel passage was uneventful. Capt. Harris commented to the observers that he would not recommend routine use of the west channel by large cruise ships. After passing red buoy #2 to port at the southern end of Pennock Island the course was altered to port to intersect with the standard track line for transit of Revillagigedo Channel. Disembarked to pilot boat in vicinity of Twin Island at about 1830 and arrived back at Daly Float, Ketchikan, at about 1915.

During the transits of Tongass Narrows maps/charts depicting locations of the various crossings were made available to observers, pilots, and ships officers for reference and comment. The one universal comment by all who chose to comment was that they were opposed to any bridge that would block the waterway to through transit i.e., low level fixed, and preferred any one of the tunnel options. Again, those who commented did not feel that any above water structural crossing in the vicinity of the present ferry route would be acceptable. Transit of the west channel by the Veendam effectively ruled out that passage as a viable option for cruise ships. Unfortunately some of the experts who could have provided commentary seemed to be in denial of the project, indicating that it will never happen, hence, not worth commenting on.

16 May was taken up with orientation over-flights of Tongass Narrows by the observation team in a CG helicopter and in attending a Project Development Team meeting. 17 May was spent in ground tour orientation of the Ketchikan area and observing cruise ship transits from shoreside.

This was of particular interest because the weather had changed to rainy and windy with reduced visibility. We were able to track the M/S Galaxy as it transited Tongass Narrows from the north until it was made fast at the cruise ship dock. Again there were three cruise ships at the dock. Even during this transit with inclement weather and reduced visibility there was a high level of floatplane activity, tug and barge traffic and an Alaska State Ferry in transit.

Vessel traffic in Tongass Narrows is subject to several Federal Regulations. 33 CFR Part 110.231 establishes a large passenger vessel anchorage area at the North end of Pennock Island. This anchorage is effective from 1 May to 30 September annually and is restricted to the use of large passenger vessels of over 1600 gross tons. 33 CFR Part 162.240 establishes special navigation regulations which provides, in part, that no vessel, except floatplanes during landings and take-offs and certain classes of non commercial small craft, shall exceed a speed of seven knots. This applies to an area of Tongass Narrows which generally includes, from the north end of the airport, south to the northern portion of the east and west channels.

During the cruise ship rides, two of the pilots expressed concerns with the high level of unregulated marine activity occurring on this heavily congested waterway and the idea that a bridge may be introduced into the mix. They indicated that notwithstanding the previously cited CFR provisions, the "Tongass Narrows Voluntary Waterway Users Guide", issued by CGD17 Captain of the Port, Southwest Alaska, was the only direction provided to manage the high volume of traffic on this severely constricted waterway. Of further concern is that compliance with the Guide is only voluntary and is not legally binding.

Conclusions:

If bridging Tongass Narrows is the selected build alternative for improved access to Gravina Island the following project issues should be considered:

1. Any low-level fixed bridge across Tongass Narrows would not provide for the reasonable needs of navigation. Any permit application for such a structure would risk ultimate denial by the Coast Guard.

the WAMS Report, rated Tongass Narrows at, or near, the top in all risk categories for waterways covered.

It is apparent that the Ketchican Area has experienced a rapid and dramatic change to its economic base. During the last few years it has shifted from an economy based primarily on the forest products and commercial fishing industries to a tourism based economy centered upon the cruise ship industry and its support infrastructure. Tourist activities depending heavily upon cruise ship supplied participants include: shopping and dining, guided excursions by land, sea, and air; and sport fishing and kayaking

Recommendations:

1. Alaska Department of Transportation

Investigate the feasibility of an opening span structure across the east waterway to Pennock Island in the vicinity of current alternatives F1-3, connecting to a mid-level fixed span across the west channel to Gravina Island. The east channel clearances should provide for cruise ship operations and the west channel clearances should provide for all other marine traffic, including Alaska State Ferries. Bridge openings normally would only be required for the passage of cruise ships. The east channel structure should provide clearances in the closed position that would pass the majority of the small craft currently using the waterway without opening. Because the majority of the bridge openings would be for cruise ships, they would occur in the May to October time period, leaving the remainder of the year relatively free of openings and their resultant delays to land transportation.

Upon selection of a preferred design alternative, if a bridge, provide the Southeast Alaska Pilots the opportunity to experience a computer simulated transit of the waterway with the bridge in place. This will provide confirmation that the design does provide for the reasonable needs of navigation.

2. City of Ketchikan

Investigate the feasibility of, and give serious consideration to, relocating the shipyard to a less congested area. The shipyard's present location, on a

semi-blind turn, at the narrowest and most congested part of Tongass Narrows unnecessarily obstructs the waterway and creates a hazard to all users, particularly when vessels are moored channelward of the drydock. Other suitable locations for a marine oriented facility of this type, which would not pose an obstruction to waterway use, appear to be available elsewhere in the area.

3. Coast Guard

Prepare an updated comprehensive WAMS Report for Tongass Narrows.

Prepare a Port Access Route Study (PARS) for Tongass Narrows. The PARS should formally address the cruise ship issue as it relates to the diverse mixture of marine and air traffic. Also, the PARS should recognize and explore the effects of existing and potential obstructions to navigation, i.e., shipyard and bridges, on the various user groups.

Develop and formalize a waterways management plan for Tongass Narrows.

Preparation of these documents should be coordinated with, and have input from, waterway users and all state and federal agencies having jurisdiction in the area. The documents should recognize and address the issue of access to Gravina Island and its potential effect on navigation.

Joel E. Mikesell

SEVENTEENTH DISTRICT BRIDGE ADMINISTRATION PROGRAM TRIP REPORT

July 2000

Gravina Access Project

James Helfinstine, 17th District Bridge Program Administrator
John Mikesell, 13th District Bridge Program Administrator

The Alaska Department of Transportation and Public Facilities is in the process of evaluating ways to improve the connection between Revillagigedo and Gravina Islands located in Ketchikan, Alaska presently linked by a ferry. Proposed improvements include construction of bridge or bridges, tunneling, or additional ferries that would cross Tongass Narrows, a waterway located between the two Islands.

On May 15-16, 2000, representatives of DOT&PF, HDR Alaska (consultants for the proposal), and the Coast Guard rode as observers on four large ocean going cruise ships while these vessels transited in and out of Tongass Narrows in Ketchikan, Alaska. Our goal was to acquire data on the potential impacts to navigation resulting from any of the various proposed crossings of the waterway.

While at the command center of each vessel we were able to acquire comments and input from the various vessel operators as we transited through the potential crossing sites located within the project corridors. The operators provided valuable insight on each of the proposed alternatives as their vessel moved through the proposed locations illustrated on the drawings. In addition, each of us had the opportunity to see firsthand the operational constraints faced by large cruise line vessels within the restricted and often congested waterway. All participants acquired a better understanding of the limited maneuvering and docking area utilized by the operators of these large vessels. In addition, we observed other transportation interests sharing Tongass Narrows that has compounded an already difficult navigational situation.

Potential sites presently being studied to connect the city of Ketchikan, Alaska located on Revillagigedo Island (left) to it's airport located on Gravina Island (right)

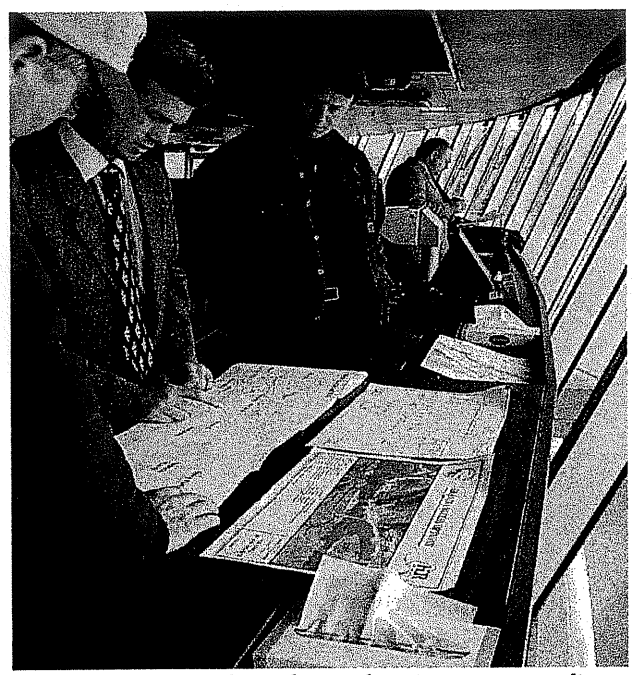
WATERWAY DESCRIPTION:

Tongass Narrows is a "Y" shaped body of water oriented in a southeast to northwest direction. It stretches from Nichols Passage on the southeast end to Guard Island on the northwest end. It is approximately 13 nautical miles in length and about ¼ of a mile wide.

It is bounded on the eastern side by Revillagigedo Island and on the west by Gravina Island. Pennock Island divides the southern portion of the Narrows into east and west channels. The cities of Ketchikan and Saxman are located on the eastern side of the Narrows and the Ketchikan Airport is located on the western side, opposite Ketchikan.

VESSELS AND PILOTS:

M/V Ocean Princess – S.E. AK Pilot - Capt. Hans Antonsen
M/V Jubilee – S.E. AK Pilot – Capt. Bob Winter
M/V Ocean Princess – S.E. AK Pilot – Capt. Dale Collins
M/V Veendam – S.E. AK Pilot – Capt. Joe Homer



Consultant, cruise ship pilot, and project manager discuss various proposed crossings while transiting Tongass Narrows

PARTICIPATING OBSERVERS:

Mark Dalton, HDR Alaska, Project Manager
Larry Kyle, HDR
Roger Healy, Alaska DOT, Project Manager
Robert Lorigan, CDR USCG, D17 MSO Juneau
Jim Helfinstine, CGD17 BAP Manager
John Mikesell CGD13 BAP Manager

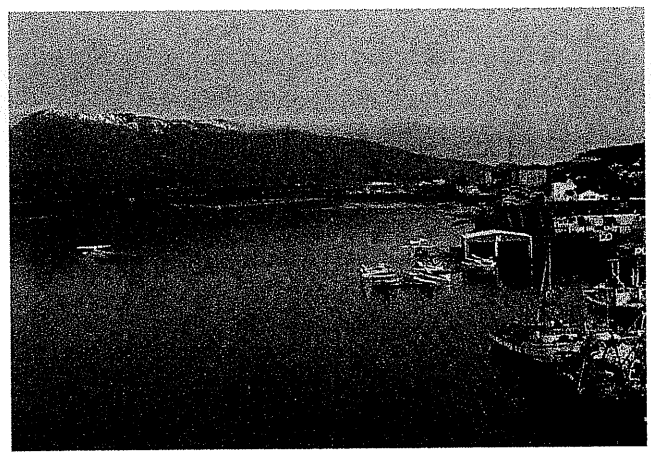
DESCRIPTION OF ACTIVITIES

The observers boarded a pilot boat located at the Daly Float in Ketchikan at about 0330 AM and proceeded south through the east channel of Tongass Narrows. We rendezvous with M/V Ocean Princess at approximately 0445 inbound to Ketchikan in Revillagigedo Channel at the Twin Island pilot pick up point. After boarding and with Pilot Capt. Hans Antonsen on bridge, we proceeded north, passing Hog Rocks to starboard, Bold Island to starboard, Spire Island Reef to port, Cutter Rocks to starboard, and Potter Rock to starboard. We entered Tongass Narrows East Channel, with Pennock Island to port. We then proceeded northwesterly passing through a 200-yard wide choke point in the channel bounded by green buoy #3 to port marking California Rock and red buoy #4 to starboard marking Idaho Rock. We passed Coast Guard Station Ketchikan to starboard and proceeded to Ketchikan cruise ship dock located on north end of Thomas Basin, making fast at about 0630. We boarded pilot boat at Daly Float, Ketchikan, at about 0830 and proceeded northwesterly through Tongass Narrows to rendezvous with M/V Jubilee off Guard Islands. While proceeding to rendezvous, we passed City of Ketchikan to starboard and Ketchikan Airport to port. We noted extensive floatplane use of the entire area with takeoffs and landings occurring from multiple terminals along Tongass Narrows. The peak level of floatplane activity occurs in the summer with a reported 500 movements per day making this the largest float plane operations in the world. Also noted was the extensive use of the waterway by commercial fishing vessels, tugs and barges, Alaska State ferry's, the Ketchikan Airport ferry, and miscellaneous recreational vessels of all sizes.

Most of the traffic, including aircraft, was parallel to the waterway, i.e., in a north/south direction, but the airport ferry transits were of necessity perpendicular to the general flow of traffic. Compounding this traffic mix is commercial and private land based aircraft operations to and from the Ketchikan Airport.

As we approached the narrowest part of the waterway, about 200 yards wide, bounded by the Ketchikan shipyard and a barge container terminal to starboard the airport ferry landing to port, the pilot boat was required to lay to, in order to allow for passage of the incoming cruise liner M/V Veendam.

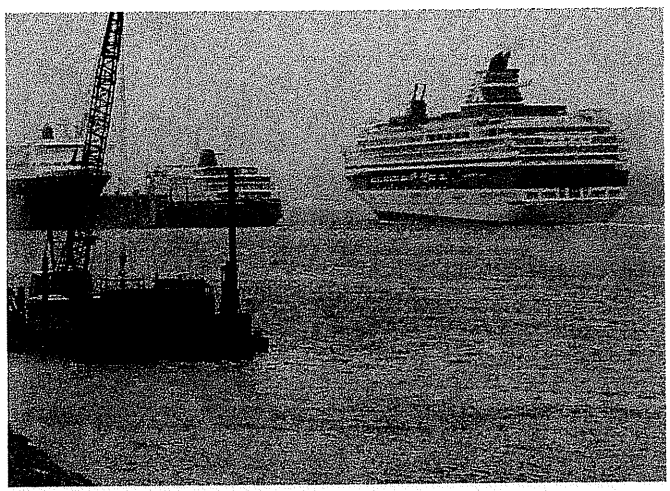
After passage of Veendam, continued transit to rendezvous with M/V Jubilee north of Guard Islands. At approximately 1000, we boarded M/V Jubilee inbound to Ketchikan with Pilot Capt. Bob Winter was the pilot on bridge. We transited southeasterly passing Guard Islands to starboard, Pond Reef to port, Rock Point and Rosa Reef to starboard, and Ohio Rock, to port. From Peninsula Point, to port, and Lewis Point, to starboard, the channel narrows, and the maneuvering room is reduced as float plane activity increases. As we continued to Ketchikan Airport, to starboard, and its associated ferry crossing, coincides with the locations of the Ketchikan shipyard and a container terminal, to port.



Float planes associated with the tourist industry share Tongass Narrows with the commercial fishing fleet, tugs and barges, Alaska State Ferries, and small recreational craft

Viewing this bottleneck from the bridge of a cruise ship is a real eye opener. No room for error, with no where to run and no where to hide if anything goes wrong. Fortunately, this passage was made under near perfect conditions of weather and traffic. The pilot voiced concern with the apparent unrestricted waterfront development in this area and its effect on navigation.

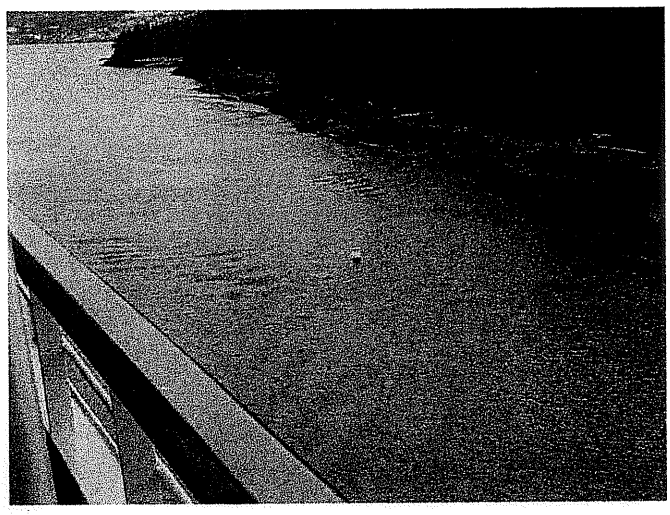
We continued inbound transit past the airport, approaching Pennock Island. We altered course to port to clear Pennock Reef to starboard and sunken wreck marked with a buoy to port. We kept red buoy 4A to starboard and made fast to cruise ship dock aft of the M/S Veendam at about 1200. CDR Lorigan departed observation group for return to Juneau. Three cruise ships at dock; M/S Veendam, M/S Jubilee and M/S Ocean Princess.



Cruise ship transits Tongass Narrows in the fog through a choke point located between State of Alaska regional ferry dry dock repair facility and airport shuttle facility located on Gravina Island

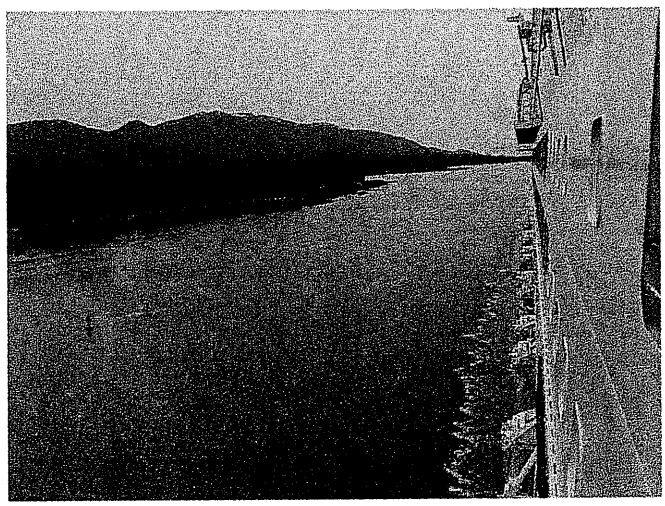
We boarded M/V Ocean Princess at Ketchikan cruise ship dock at about 1400, Pilot Dale Collins on bridge. We departed outbound to north for pilot debarkation area in vicinity of Guard Islands. Outbound transit reverse of and similar to inbound transit on M/V Jubilee. Area in vicinity of ferry crossing, airport, and shipyard presented similar challenges as inbound passage. Disembarked to pilot boat at about 1500 in vicinity of Pond Reef and returned to Daly Float, Ketchikan, at about

1545. We boarded M/V Veendam at about 1730 for transit south to Twin Islands pilot drop off point, Pilot Capt. Joe Homer on bridge. As a favor to the observers, Capt. Peter Harris, Master of the Veendam agreed to transit south through the west channel between Pennock and Gravina Islands. *This is not a normal route for large cruise ships nor is it a recommended one.* However, all conditions were favorable for the transit *Capt. Harris wanted to demonstrate that alothough it was feasible to keep the green buoy PR to port and avoiding Pennock Reef, to line up with the west channel, it was tight* The Captain's skill combined with ideal weather conditions enabled these maneuvers to be completed with apparent ease, with only *the junior officers on watch expressing concern for this departure from the norm*. Proceeding southeasterly into the west channel, the vessel passed close aboard to the high steep face of Pennock Island between red light # 4, to port, and green buoy # 5, to starboard.



Proceeding southeasterly into the west channel passing the high steep face of Pennock Island at port near red light # 4

During this passage, the junior officer manning the depth sounder was visibly agitated by *the reduced clearances being recorded under the keel.* The remainder of the west channel passage was uneventful. Capt. Harris commented to the observers that he would not recommend routine use of the west channel by large cruise ships. After passing red buoy 2 to port at the southern end of Pennock Island the course was altered to port to intersect with the standard track line for transit of Revillagigedo Channel. Disembarked to pilot boat in vicinity of Twin Island at about 1830 and arrived back at Daly Float, Ketchikan, at about 1915.



Proceeding southeasterly into the west channel, the vessel passed close to green buoy # 5 to starboard

During the transits of Tongass Narrows maps/charts depicting locations of the various crossings were made available to observers, pilots, and ships officers for reference and comment. *The one universal comment by all who chose to comment was that they were opposed to any bridge that would block the waterway to through transit i.e., low level fixed*, and preferred any one of the tunnel options. Again, those who commented did not feel that any above water structural crossing in the vicinity of the present ferry route would be acceptable Transit of the west channel by the Veendam effectively ruled out that passage as a viable option for cruise ships. Unfortunately some of the experts who could have provided commentary seemed to be in denial of the project, indicating that it will never happen, hence, not worth commenting on.

16 May was taken up with orientation over-flights of Tongass Narrows by the observation team in a CG helicopter and in attending a Project Development Team meeting. 17 May was spent in ground tour orientation of the Ketchikan area and observing cruise ship transits from shoreside.

This was of particular interest because the weather had changed to rainy and windy with reduced visibility. We were able to track the M/S Galaxy as it transited Tongass Narrows from the north until it was made fast at the cruise ship dock. Again there were three cruise ships at the dock. Even during this transit with inclement weather and reduced visibility there was a high level of floatplane activity, tug and barge traffic and an Alaska State Ferry in transit.

Vessel traffic in Tongass Narrows is subject to several Federal Regulations. 33 CFR Part 110.231 establishes a large passenger vessel anchorage area at the North end of Pennock Island. This anchorage is effective from 1 May to 30 September annually and is restricted to the use of large passenger vessels of over 1600 gross tons. 33 CFR Part 162.240 establishes special navigation regulations which provides, in part, that no vessel, except floatplanes during landings and take-offs and certain classes of non commercial small craft, shall exceed a speed of seven knots. This applies to an area of Tongass Narrows which generally includes, from the north end of the airport, south to the northern portion of the east and west channels.

During the cruise ship rides, two of the pilots expressed concerns with the high level of unregulated marine activity occurring on this heavily congested waterway and the idea that a bridge may be introduced into the mix. They indicated that notwithstanding the previously cited CFR provisions, the "*Tongass Narrows Voluntary Waterway Users Guide*", issued by CGD17 Captain of the Port, Southwest Alaska, was the only direction provided to manage the high volume of traffic on this severely constricted waterway. *Of further concern is that compliance with the Guide is only voluntary and is not legally binding.*

Conclusions:

If bridging Tongass Narrows is the selected build alternative for improved access to Gravina Island

The following project issues should be considered:

1. Any low-level fixed bridge across Tongass Narrows would not provide for the reasonable needs of navigation. Any permit application for such a structure would risk ultimate denial by the Coast Guard.

2. Any permit application for a bridge located in the vicinity of Charcoal Point, i.e., current alternatives C1-4 and D, would risk ultimate denial by the Coast Guard as being an unreasonable obstruction to navigation. Also, it is unlikely that a structure in this general location would meet with Federal Aviation Administration (FAA) approval.

3. High level bridges, current alternatives A, B and F2, appear to be the most likely to receive favorable permit action by the Coast Guard, provided the vertical and horizontal clearances are sufficient to safely accommodate existing and reasonably potential cruise ship operations.

Review of the "*Tongass Narrows Voluntary Waterways Users Guide*" finds it to be a useful tool for anyone not familiar with the waterway. It is indeed a "guide" and nothing more, full of useful information, but not binding on waterway users. In fact, while recognizing the high volume and diversity of traffic on the waterway, it is replete with the statements: "suggested procedures", "suggested operating areas" and "suggested operational guidelines". Either through design or oversight, it barely touches on cruise ship operations and then shows more concern for wake damage issues and anchoring than for operational safety issues. Two of the four SE AK Pilots on the cruise ship rides voluntarily voiced concern over the effectiveness of the Guide. Among the concerns were: What is to prevent meeting and overtaking situations in this congested waterway and, if allowed, where and under what circumstances should they take place? Other less congested waters have specific rules to cover these and other common operational

issues. Doubt was expressed that the "self-policing" attributes of the guide could be counted upon when there are monetary incentives and schedules to meet. The latest *Waterways Analysis and Management System (WAMS) Report* for Tongass Narrows, WAMS #17106, is dated April 14, 1992. Cruise ships were not noted as a significant presence in that report. Obviously this has changed in the ensuing 8 years in the absence of an updated WAMS report. It is interesting to note, however, that the document "*Risk Assessment in Waterways Management – A SE Alaska Waterway Prioritization Project*", dated May 2, 1998, which is purported to replace the WAMS Report, rated Tongass Narrows at, or near, the top in all risk categories for waterways covered.

It is apparent that the Ketchikan Area has experienced a rapid and dramatic change to its economic base. During the last few years it has shifted from an economy based primarily on the forest products and commercial fishing industries to tourism based economy centered upon the cruise ship industry. Tourist activities depending heavily upon cruise ship supplied participants include: shopping and dining; guided excursions by land, sea, and air; and sport fishing and kayaking. These activities and their support infrastructure form an important part of the local economy.

Recommendations:

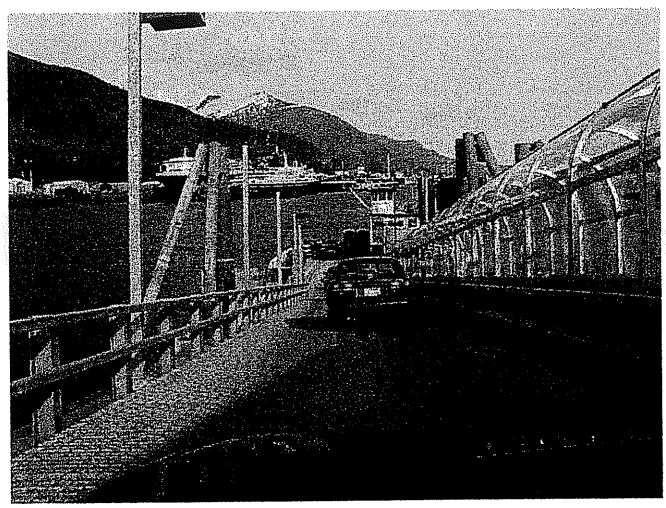
a. Alaska Department of Transportation-Investigate the feasibility of an opening span structure across the east waterway to Pennock Island in the vicinity of current alternatives F1-3, connecting to a mid-level fixed span across the west channel to Gravina Island. The east channel clearances should provide for cruise ship operations and the west channel clearances should provide for all other marine traffic, including Alaska State Ferries. Bridge openings normally would only be required for the passage of cruise ships. The east channel structure should provide clearances in the closed position that would pass the majority of the small craft currently using the waterway without opening.

b. City of Ketchikan-Investigate the feasibility of relocating the shipyard to a less congested area. The shipyard's present location, on a semi-blind turn, at the narrowest and most congested part of the waterway creates a hazard to all waterway users, particularly when vessels are moored channelward of the drydock.

c. Coast Guard-Prepare an updated comprehensive WAMS Report for Tongass Narrows.

And/or

Prepare a Port Access Route Study (PARS) for Tongass Narrows. The PARS should formally address the cruise ship issue as it relates to the diverse mixture of unregulated marine traffic. Also, the PARS should recognize and explore the effects of bridging the waterway on the various user groups. Lastly, the PARS should address the desirability/need for establishing formal regulatory control over the marine activities/traffic in Tongass Narrows.



Vehicles and pedestrians load on to a shuttle ferry departing airport located on Gravina Island (Note State of Alaska regional ferry dry dock repair facility located on Revillagigedo Island)

MEMORANDUM State of Alaska

Department of Transportation & Public Facilities
Statewide Design & Engineering Services Division /Bridge Section

TO: Roger Healy, PE
Project Manager
Southeast Region

DATE: October 4, 2000

BRIDGE NO:
TELEPHONE NO: 465-2975
FAX NUMBER: 465-6947
TEXT TELEPHONE: 465-3652

FROM: Richard A. Pratt, PE
Chief Bridge Engineer

SUBJECT: Gravina Island Access
Bridge Type Selection
Report Criteria

As requested, we are providing a brief list of items that should be considered in the next phase of the Gravina Island Access study. To date, the Consultant has provided many alternatives that address improved access to Gravina Island. At this stage, several alternatives should be selected for continued study. Apparently the winnowing process has already occurred to some extent with construction cost being one of the major selection criteria.

The current stage of project development is the production of a Major Structure Selection Report. Within this report, each alternative should be evaluated with respect to the items listed below. The report should include the advantages and disadvantages of each alternative with respect to the listed items.

- Refined construction cost
- Aesthetics
- Constructability issues
- Traffic (air, sea, and land) impacts before, during, and after construction
- Time required to construct the bridge and approaches
- Construction safety issues
- Hydraulic capacity and impacts
- Long-term maintenance and operation costs
- Environmental impacts
- Conformance with user expectations

To adequately examine the feasible alternatives some additional reconnaissance work will likely be required. This work may include topographic and hydraulic surveying, geotechnical exploration, and other site-specific investigation. The site investigation work should be sufficient to produce a reliable and confident analysis of the feasible alternatives but not so exhaustive as to restrict future modifications to the "final" alignment.

The report should conclude with a recommended preferred alternative. The preferred alternative should be supported by the report's discussion of each alternative.

Please do not hesitate to contact me if you have any other questions or comments.

EEM/bm

October 30, 2000

Mr. James Helfinstine
USCG Aids to Navigation Branch
Bridge Division
Seventeenth Coast Guard District
Juneau, Alaska

Dear Jim,

I have the following comments to make on the Ketchikan Alaska bridge proposal. As a both a federal and state licensed marine Pilot of vessels of any gross tons, and a former Southeast Alaska Buoy tender Captain, and former branch chief for the Seventeenth District Aids to navigation branch, I can speak to the problems from several view points.

Channel Island area:
Speed is limited from that point to all southern areas of the harbor. Steerage is therefore limited due to the lower ship speeds. Any constriction to the channel will change the current patterns, with unknown effects. The Avi file that I was shown shows the bridge abutments actually in the channel. I sent in the track lines used by deep draft traffic earlier this spring and thus far have not seen the simulation with these tracks overlaid.

In the summer of 2001, new vessels will be in the Alaska trade. These new vessels will be approaching 1000 feet in length. (Carnival Spirit and Celebrity Cruise Line's Millenium) 978 feet and 968 feet respectively and approximately 90,000 Gross tons. These vessels are 100 to 150 feet longer than the present Sun Class vessels, 868 feet and 77,000 gross tons. In the past ships that were built to Panamax numbers were built to the 106 feet beam maximum, now they are also being built to the maximum length. During the summer of 2002 Cruise vessels of the Grand class, 112,000 gross tons are expected. This class vessel is considerable wider than the present day 106 feet. Windage is already a problem with these large vessels, as they get longer and wider, the windage problem is made considerable worse. I'm sure that the engineers doing the design work are aware of the wind pressure situation, pressure increases to the square of the wind speed. ie.. a wind increase from 2 to 4 knots does not double the wind, but increases 4 times in pressure felt on the side of the vessel.

The area from Peninsula Point to the Dry Dock is relatively narrow and congested during the summer months. Not only are there small vessels, tugs with tows, the Airport Ferry, but also a considerable amount of floatplane traffic. Any narrowing of the channel with supports will present a dangerous situation for two - way traffic. One way traffic is really not practical in that some traffic only passes the narrows with a following current. In addition, any limitation to one-way traffic would not be practical for thousand foot long cruise ships. There is no safe way to put 3 ships at the dock facing in one direction and turn them around within the harbor to exit in the same direction that they came in. If a ship is anchored in the inner harbor, the maneuver to turn a vessel around and pass the anchored ship is unsafe. With two ships anchored in the inner harbor, it is even more dangerous.

Any closure of the East channel will pretty much eliminate Ketchikan as a Cruise ship port. I'm not sure that the economic benefit of a bridge to Gravina Island would outweigh the loss of millions of dollars spent in the tourist trade from the Cruise vessels. Many Ketchikan business have become dependant on this business for their existence and loss of the cruise trade would be devastating to the Ketchikan economy.

The FAA must be involved in the planning process! As a private pilot, I am concerned about any airspace incursion around the airport. Ketchikan Harbor is the busiest sea plane harbor in the world, the combination of a high bridge and the low ceilings experienced in and around the Ketchikan area will be a contributing factor to a major air disaster.

If a bridge is a fore drawn conclusion, I feel that the Star Center ship simulator in Dania Florida must be used to simulate all of the variables of each of the proposed crossings, using a variety of wind, current, visibility and traffic conditions. During the last several summer seasons, winds in excess of 70 knots have not been unheard of in Ketchikan harbor. Narrowing the channel would make an already challenging shiphandleing situation much worse. Fog is also a normal summer time problem in Ketchikan harbor from Guard Island in the north to Twin Island to the south. Bridges would narrow an already narrow channel in the fog with potentially catastrophic results. As a marine pilot with considerable experience with simulation at Dania, I would be happy to volunteer my time to drive different vessel simulations with the bridge overlays.

If the crossing must be made, a tunnel seems the only option that is reasonable and able to co-exist with present marine traffic.

If you have any questions, or if I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Captain Robert Winter
9370 View Drive
Juneau, Alaska 99801
907 789 0467 home
907 780 4901 work
907 321 0873 cell

U.S. Department of Transportation
Federal Aviation Administration

FAA Juneau FSDO-05
3032 Vintage Park
Blvd.Suite 106
Juneau AK 99801
Comm: (907) 586-7532
Fax: (907) 586-8833

July 15, 2002

John Schommer
FAA Obstruction Evaluation Specialist
222 West 7th Ave, #14
Anchorage, AK 99513

Dear Mr. Schommer,

At your request, I have reviewed the 6 Bridge Alternatives between Revillagigedo Island and Gravina Island to determine how each will effect SVFR operations conducted under Exemption 4760 in the Ketchikan area.

The authority to grant, deny or amend an exemption lies only with the Director of Flight Standards, AFS-1. However, because the Juneau FSDO has local knowledge of the SVFR operations in Ketchikan, we often make recommendations to interested parties.

It is my opinion that each of the proposed bridges would require at the least, an amendment to Exemption 4760. Since Exemption 4760 allows aircraft to fly as low as 200ft, obviously a 250 ft high bridge presents an hindrance. If Exemption 4760 is to remain if effect, it's physical boundaries would have to be redrawn to keep traffic away from the bridge and/or its altitudes amended. It is possible that a bridge could create a greater hazard to safety, than the benefits of Exemption 4760 warrant.

Alternatives C3(a), C3(b), C4, and D(1) all propose building a bridge near the airport, which could be considered the center of the Class E Surface Area. These bridges would hinder aircraft flying in bound from the West to Ketchikan Harbor. It is my opinion that if any of these bridges are built, at a minimum the boundaries of Exemption 4760 would have to be modified to exclude any airspace West of the airport. This would greatly reduce the effectiveness of Exemption 4760, to the point that less than 10% of the current operations conducted under Exemption 4760 would still be allowed.

Alternative F(3) proposes building 2 bridges on Pennock Island, which is nearly outside the Class E Surface Area to the East. Both bridges appear to be outside of the current boundaries of Exemption 4760 airspace (as established in the airspace agreement between KTN FSS and the 135 Operators). To

reiterate, the boundaries of Exemption 4760 are significantly smaller than the boundaries of the Class E Surface Area. The bridge nearest to the Exemption 4760 airspace is proposed to be less than 100 feet high. But because of the close proximity of the bridge to the Exemption 4760 airspace, it is my opinion that the east boundaries and possibly the altitudes of Exemption 4760 would still need to be adjusted, but to a lesser degree.

Because each of the proposed bridges is within close proximity to the seaplane landing areas, it is my opinion that aircraft will be able to fly closer than 500 feet to the bridges without violating minimum altitudes because it will be necessary for take off and landing. This will happen during VFR as well as normal SVRF operations. Because of the constant floatplane operations, there will of course be several complaints and conflicts with automobile drivers.

In summary, it is my opinion that each of the Bridge Alternatives would require changes to Exemption 4760, but Alternative F(3) would be the least disruptive. As I stated above, this is my professional opinion. The final authority over exemptions lies with AFS-1.

Sincerely,

Mick J. Green
Principal Operations Inspector

FILE GAP
USCG CORRES.

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

P.O. Box 25517
Juneau, Alaska 99802
Staff Symbol: (oan)
Phone: (907) 463-2268
FAX: (907) 463-2273

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4.2.1

16590
March 4, 2002

HDR Alaska, Inc.
Attn: Mr. Mark Dalton
712 W. 12th Street
Juneau, Alaska 99801

Dear Mr. Dalton:

Numerous concerns have been received by the Coast Guard as a result of Governor Knowles and Alaska Department of Transportation and Public Facilities (AKDOT&PF) Commissioner Joe Perkins recent public announcement outlining their recommended method by the State of Alaska to improve access to Gravina Island from Ketchikan, Alaska. Alternative F3, the alternative that provides access by crossing Pennock Island using two bridges, is AKDOT&PF's recommended or prefered alternative for the Gravina Access Project. We note that correspondence dated January 21, 2002, indicates that AKDOT&PF is recommending Alternative F3 as its *preliminary preferred alternative* and that you are still soliciting more comments prior to making a final decision to advance this alternative.

At first glance this alternative seems more attractive than most of the others because it is located at a site that avoids conflicts associated with aviation adjacent the Ketchikan Airport and a navigational choke point next to the Ketchikan Airport. However, Pilots of the various cruise ships and the Alaska State Ferries transiting the Ketchikan area have expressed grave concern with the Alternative F3 proposal of constructing a low span bridge between Ketchikan and Pennock Island. Concerns have been raised that this would in essence prevent larger vessels such as cruise ships and military vessels from utilizing the historically used Tongass Narrows East Channel. Your proposal to restrict vessel traffic to only one-way traffic in Tongass Narrows as a method to mitigate Alternative F3 impacts to navigation is not supported by any of the vessel operators.

A recent letter from the NOAA Navigation Advisor for Alaska also raises concerns with Alternative F3 closing off Tongass Narrows East Channel to larger vessels. Their agency plans to station the NOAA Ship FAIRWEATHER in Ketchikan in 2003 and noted that your proposal would not allow its vessels to utilize the Tongass Narrows East Channel to reach its proposed mooring site.

It may be noted that the Coast Guard raised some of these same issues as well as others in a report "Gravina Access Project" provided to you after we participated in a navigational familiarization trip during May 15-16, 2000. This trip provided the Coast Guard, AKDOT&PF, and your firm an opportunity to make observations and solicit comments from the vessel operators in the command center of four separate cruise ships transiting various directions through the proposed bridge sites illustrated on your plans. One of the cruise ships was diverted south through the west channel between Pennock and Gravina Islands to illustrate the difficulty

of using this proposed route. Although the State Ferry uses this route, the larger and ever increasingly taller cruise ships rarely use this restricted passage. Special permission was necessary from the owners of the vessel prior to this maneuver. Several operators during this trip commented that any bridge that would block the East Channel of Tongass Narrows requiring them to use the West channel would not be supported by the cruise line industry.

The Coast Guard shares what appears to be a maritime industry wide concern with Alternative F3 resulting in increased congestion at an already cluttered navigational setting. From a vessel operator perspective the situation would not only be made more disruptive but could prove to be hazardous during inclement weather. Economic impacts on waterborne commerce of such a proposal has yet to determined. One could easily speculate that they would not be favorable.

Given that noted above, Alternative F3, as proposed, will not provide for the reasonable needs of navigation and in all likelihood will not receive support or approval from the Coast Guard. If you have any questions, please contact me at (907) 463-2268.

Sincerely,

J. N. HELFINSTINE
Chief, Bridge Section, Waterways
Management & Navigation Safety Branch
U. S. Coast Guard
By direction of the Commander

Encl: (1) Letter from NOAA dated February 25, 2002
(2) Letters from the Southeast Alaska Pilot's Association
(3) Correspondence from Captain Bill Hopkins, M/V Kennicott
(4) Letter from Capt Karl A. Luck, USCG (Ret)
(5) Letter from Captain Frank D. Didier

CC: (1) Federal Highway Administration
(2) Alaska Department of Transportation
(3) NOAA
(4) Southeast Alaska Pilot's Association
(5) Captain Bill Hopkins
(6) Captain Karl A. Luck
(7) Captain Frank D. Didier

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FILE COPY

March 28, 2001

HDR

Mr. Jim Helfinstine, Chief
U.S. Coast Guard, Bridge Section
P.O. Box 25517
Juneau, Alaska 99802

Subject: Gravina Access Project – Ongoing Navigational Technical Studies

Dear Mr. Helfinstine:

As we discussed on the phone, the Gravina Access Project is entering a new phase. As a result of recent work, the project will begin the more rigorous assessment of a reduced number of alternatives for inclusion in the document prepared to comply with the requirements of the National Environmental Policy Act. We have determined the reasonable alternatives that will be studied further and are developing the environmental impact statement.

In a recent memorandum to you and the other members of the Gravina Access Project Development Team, Roger Healy of the Alaska Department of Transportation and Public Facilities (DOT&PF) outlined the DOT&PF's current approach to investigating the reasonable alternatives for the project. As described in that memo, HDR Alaska, Inc. (HDR) is working to complete a series of technical analyses and refine the engineering design of Alternatives C3, C4, D1, F3, G2, G3, and G4 to facilitate a decision on a preliminary preferred alternative for consideration in the Environmental Impact Statement. A detailed description of these alternatives was provided to you in January 2001. A significant component of this current work effort involves an analysis of marine navigation in Tongass Narrows. The purpose of this letter is to provide you with a comprehensive description of the scope of the navigational analysis and encourage your feedback regarding this effort.

Current Phase of Work

HDR is conducting preliminary engineering studies for each alternative to determine potential right-of-way requirements; bridge requirements, including pier placement and navigational clearances; the optimal alignment for a ferry alternative; and the typical ferry terminal layout. The preliminary engineering will also be used for an updated video simulation of the reasonable alternatives. Using the refined design information developed in these engineering studies, the HDR project team will evaluate the environmental and social impacts associated with each of the alternatives. The results of these studies will be presented in an Evaluation of Build Alternatives report. Based on the findings presented in that report, the DOT&PF will develop a preliminary preferred alternative for the project.

Engineering Support - Navigation Simulations

In support of the bridge studies, members of the HDR project team from The Glosten Associates will perform fast-time Monte Carlo maneuvering simulations for Tongass Narrows. These simulations will provide probabilistic data that would be useful in assessing the horizontal clearance and in the design of impact protection for the bridge piers. The simulations will be based on ship handling characteristics typical of the large cruise ships that currently call or are planned to call in Ketchikan. Fast-time Monte Carlo maneuvering simulations of Alternative F3 (i.e., the Pennock Island alternative) will include passage of West Channel by large cruise ships and by large Alaska ferries.

Based on the Monte Carlo simulations, we will produce a briefing paper that supports a specific set of clearances for which the Gravina Access Project seeks U.S. Coast Guard approval. Should the DOT&PF

HDR Alaska, Inc.

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recommend a bridge alignment for the project at the conclusion of this phase of the project (i.e., based on the evaluation of build alternatives), we would anticipate performing a full mission real time simulation of the selected bridge site.

Navigation Analysis

Members of the HDR project team from The Glosten Associates will build on the previous navigation studies conducted for this project[1] and assess the effects of the project alternatives on marine navigation in Tongass Narrows and along other marine travel routes. The analysis will involve development of projections for future cruise ship traffic in Tongass Narrows based on consideration of historical trends and discussions with cruise industry trade organizations and leaders. High case, low case, and most probable case projections will be developed. The projected future traffic volumes will be used to characterize marine traffic congestion in the Ketchikan cruise port and approaches.

We will investigate impacts of a 120-foot high bridge positioned across Tongass Narrows at the airport (Alternative D1) with respect to cruise ship schedule and cost. The analysis will involve a review of the schedules of a representative set of existing large cruise ships to determine a) reduction in port time, if any; b) increase in running time and associated costs (e.g., fuel); and c) incidental costs associated with the change in port maneuvering patterns (e.g., cost of hiring harbor assist tugs).

Aviation Analysis – Floatplane Operations

Understanding that floatplanes are considered vessels when on the water and subject to the International Navigation Regulations, HDR will investigate the potential impacts of the proposed alternatives on floatplane operations on Tongass Narrows. This task will involve field observation of current floatplane operations in Tongass Narrows and interviews with floatplane pilots. We will also digitize landing patterns and incorporate them into the GIS mapping of the study area to help determine potential impacts to floatplane traffic, which could affect other navigation in Tongass Narrows.

These analyses conducted by the HDR project team in the coming months will provide a comprehensive assessment of the potential impacts associated with the Gravina Access Project alternatives with respect to navigation. The results of these analyses will provide the building blocks for our discussion of these issues in the Draft Environmental Impact Statement, scheduled for release in the winter of 2001/2002. If you have any questions regarding this work effort, please do not hesitate contacting me in Juneau at 907-586-9833 or in Anchorage at 907-274-2000.

Sincerely,

HDR Alaska, Inc.

M. T. Dalton

Mark Dalton
Project Manager

cc: Roger Healy, DOT&PF

---

[1] Previous studies include the *Marine Navigation Conditions Summary Technical Memorandum* and the *Consequences of Various Channel Closures to Large Shipping Technical Memorandum. Copies of these memoranda are available on the project web site at www.gravina-access.com.*

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

P.O. Box 25517
Juneau, Alaska 99802
Staff Symbol: (oan)
Phone: (907) 463-2268
FAX: (907) 463-2273

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RECEIVED
JUN 11 2001

HDR Alaska, Inc.
Attn: Mr. Mark Dalton
712 W. 12th Street
Juneau, Alaska 99801

Dear Mr. Dalton:

Please provide some additional clarification on the fast-time Monte Carlo maneuvering simulations as noted in your letter dated March 28, 2001. It is my understanding that this technique will be used to assess the horizontal clearances of the reasonable alternatives recently selected that will be studied further and incorporated into the developing environmental impact statement (EIS) for the Gravina Access Project. Will this method include variances in tidal, wind, and interactions with other vessels?

I have enclosed a letter dated October 30, 2000, from Captain Robert Winter, one of the marine Pilots of the various cruise ships transiting the Ketchikan area. His letter contains some very interesting viewpoints and some legitimate concerns worth noting. Please incorporate and consider his comments into the navigational study that has moved forward recently. I note his generous offer to assist you when you reach the point of developing a full mission real time simulation of the selected bridge site in the near future. In addition, he again offers to provide your office with track lines of preferred vessel movements of some of the cruise ships. It appears this will ensure that your simulation is accurate and reflects actual movement by the largest vessels that will be impact by any proposed bridge structure.

If you have any question, please contact me at (907) 463-2268.

Sincerely,

J. N. HELFINSTINE
Chief, Bridge Section, Waterways
Management & Navigation Safety Branch
U. S. Coast Guard
By direction of the Commander

Encl: (1) Letter from Captain Robert winter dated October 30, 2000

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

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March 18, 2002

Re: Project No. 67698
Gravina Access Project

Mr. James Helfinstine
Chief, Bridge Section, Waterways
Management & Navigation Safety Branch
U.S. Coast Guard
P.O. Box 25517
Juneau, Alaska 99802

Dear Mr. Helfinstine:

We are very disappointed in your March 4, 2002 letter to Mark Dalton of HDR Alaska, our consultant for the Gravina Access Project.

We do not share your conclusions regarding the Pennock Island alternative. Additionally, we do not appreciate the premature public condemnation of a remaining alternative by a project cooperating agency. The Department has been making good progress on trying to conduct a fair and reasonable process to comply with the National Environmental Policy Act. With your letter you have caused a serious setback to the process, with little apparent support beyond a few comment letters from marine pilots. We do not mean to diminish their concern, but their comments are not an industry-wide condemnation of this alternative. Keep in mind that this is a very important project for the entire Ketchikan community and its future. While I realize that your mission is to protect the reasonable needs of marine navigation, this project and its eventual direction can also have dramatic impacts on surface and air transportation.

On January 7, 2002, the Department announced their *recommended* alternative (F3 – Pennock Island) to the Ketchikan community. The Department made this recommendation on the basis of eight months of effort to compile the technical studies now available in the Summary Document and on the project web site (www.//gravina-access.com). The Summary Document along with a CD of all the technical studies were mailed to the Project Development Team (PDT) members on January 22, 2002. It is my understanding that Mark Dalton hand-delivered two copies of the Summary

Document (with CD) to you during the week of January 21st. These studies included analyses of:

- Marine Navigation (Monte Carlo Simulation) through Tongass Narrows;
- Effects on Cruise Ship Operations;
- Economic Impacts;
- Special VFR Analysis (Aircraft Operator Impacts);
- Airport and Floatplane Facilities and Operational Effects;
- Bridge Structures; and many other reports that detail impacts upon various environmental, social and economic aspects of the community.

In December 1999, the Department distributed to the U.S. Coast Guard copies of the *Marine Navigations Conditions Summary Technical Memorandum, October 1999.* This document presented requirements or historical trends in commercial, fishing, military, and cruiseline vessels that have frequented, or could frequent, Tongass Narrows. In addition to this research, the Department has held numerous interviews and meetings with community and industry stakeholders including:

- Operation and Marketing Representatives of Major Cruise Lines;
- Northwest Cruise Ship Association;
- Marine Pilot Associations;
- U.S. Coast Guard;

With this research and coordination in mind, I would like to clarify several issues in your letter.

1) The economic impacts to the community and waterborne commerce have been quantified. They are contained in the reports issued to you, as a member of the PDT. If there is further detail you feel needs to be addressed in these studies, then we would appreciate your input.

2) The Department has been employing concept and preliminary design methods recommended by the International Navigation Association and the U.S. Coast Guard. Fast-time Monte Carlo simulations identified a higher risk level in the West Channel, but only 25% higher than the current conditions in the East Channel. The Department has agreed to accelerate the full-mission simulation work – at substantially increased project costs – to further quantify these and other risks from the eight alternatives to assess their impact on navigation for each alternative. Along with other industry representatives, we look forward to the results of this work. We anticipate that the full-mission simulation work will identify specific issues or parameters for future marine navigation in Tongass Narrows.

3) The design ships used in the fast-time simulations are representative of those cruise ships calling in Ketchikan during the 2001 season. It is the assumption of this work that newer cruise ships will have better maneuvering capabilities (more powerful stern and bow thrusters, azipods, etc.) If there are vessels

frequenting Tongass Narrows that have greater size and/or worse maneuvering characteristics than the 2001 cruise ships, please let us know.

4) You mentioned that unspecified government vessels had expressed concern over the Gravina Access Project, and specifically the F3 alternative. This is the first we have heard of this specific concern. I suggest we discuss this in a future meeting since this new development has the potential to jeopardize any reasonable bridge alternative.

The timing of your letter is either premature or 16 months late. During the PDT meeting of December 12, 2000, the Department announced that all bridge alternatives excepting C3/C4, D1, and F3 were unreasonable on the basis of cost. There was no discussion about these bridge concepts posing unreasonable restrictions to marine navigation. According to your July 2000 report, should we expect a similar ruling on the C3/C4 bridges, D1 also? Are no current bridge alternatives permitable?

As you must understand, the intent of the public and agency outreach now is twofold: one, to engage the Ketchikan community in order to formulate project direction and advocacy; and two, to solicit input on the technical reports to determine what other information would be useful to support preparation of the Draft Environmental Impact Statement (DEIS). Since we are a ways from having the DEIS, your letter targeting a specific alternative at this stage is premature. The Coast Guard does not select alternatives nor render a specific decision as to their reasonableness. If, after weighing all the factors in the DEIS, DOT&PF selects the F3 alternative as the preferred then all impacts will be fully and fairly disclosed in the document, including marine navigation impacts and ways to mitigate those impacts.

The Department has compiled several navigational charts from other active cruise ship ports. While weather, currents, tides, and winds can be defining criterion for cruise ship maneuvers, I find these charts informative in comparing harbor dimensions to those proposed for Ketchikan.

In regards to the NOAA vessel Fairweather, we share Mr. Baird's statement that restricting vessel access in the East Channel is not ideal. Large vessels will be required to undergo increased maneuvers – we have never disputed this, and in fact, have attempted to quantify that economic impact as best as available data will allow. However, this is an important project to Ketchikan, it's transportation network, and its potential for future growth and development. Marine transportation is one segment of that network. There are two other equally vital transportation modes: land and air. In the upcoming months, we must balance the present and future needs of all transportation modes against community goals, funding availability, and public safety and convenience.

In summary, I believe that your statement that alternative F3 will not provide for the reasonable needs of navigation is premature. I recommend that you review the documentation available, await the conclusions of the full mission simulation studies, and compare the harbor characteristics of other ports to the bridge alternatives

(attached) prior to forwarding a statement that an alternative does not meet the present or future needs of navigation. I ask that you cooperate with the Department in the process and not render premature decisions about alternatives before a draft environmental impact statement has been prepared.

If you have any questions, please don't hesitate to contact me at 465-1821.

Sincerely,

Roger Healy, P.E.
Engineering Manager

cc: Commander, Rear Admiral Thomas Barrett, U.S. Coast Guard
Captain of the Port, Commander Steve Ohnstad
Commissioner Joe Perkins
Bob Doll, Southeast Regional Director
Federal Highway Administration
National Oceanic and Atmospheric Administration
Southeast Alaska Pilot's Association
Captain Bill Hopkins
Captain Karl A. Luck
Captain Frank D. Didier
Mayor Jack Shay, Ketchikan Gateway Borough
Mark Dalton, HDR

Attachments (not faxed)

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

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April 12, 2002

Rear Admiral Thomas Barrett, Commander
US Coast Guard, 17th District
PO Box 25517
Juneau, AK 999802

Subject: Gravina Access Project Full Mission Simulation, Project #67698

Dear Admiral Barrett:

The Department of Transportation and Public Facilities (DOT&PF) is planning to conduct full mission vessel simulations of the Gravina Access Project bridge alternatives at the Star Center in Dania, Florida. The work is scheduled during the period April 29th through approximately May 11th. Because of serious time constraints at the Star Center, the simulation work will be conducted in the evenings from approximately 6 pm to midnight each day. We are seeking Coast Guard representation in Florida for the initial simulation calibration and early vessel tests, approximately April 29th through May 1st.

I am pleased to solicit your nominations for U.S Coast Guard representation. It would be most useful if at least one of your attendees were familiar with shiphandling and if we could receive the names of your attendees by April 17th. DOT&PF will cover direct expenses for your representatives to participate in the simulation observation during the dates specified. We do not believe attendance during the entire period is necessary. DOT&PF and Consultant staff will generally attend during this same timeframe to control costs. Of course, staff specifically engaged in the technical aspects of the simulation exercise will attend during the entire time.

We have secured commitments for two marine pilots each from both the Alaska Coastwise Pilots Association and the Southeast Alaska Pilots Association to participate. We have Captain Bill Wright, Senior Vice President for Environment, Safety, and Security from Royal Caribbean International as the primary cruise industry representative. We look forward to US Coast Guard participation in this important evaluation step for the Gravina Access Project.

My point of contact is Roger Healy at 465-1821.

Sincerely,

Bob Doll
Southeast Regional Director

Cf: Mark Dalton, HDR Alaska

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

April 17, 2002

Captain David Gray:
Alaska Coastwise Pilots Association
PO BOX 23367
Ketchikan, AK 99901

Subject: Gravina Access Project, Simulations of Transits through Tongass Narrows

Dear Captain Gray:

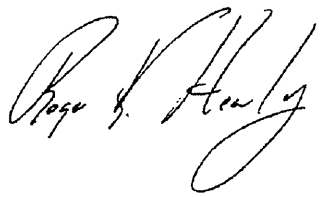
As we've discussed, the Alaska Department of Transportation and Public Facilities (DOT&PF) is planning to conduct real-time full-mission simulations of cruise ship transits through Tongass Narrows to characterize the potential impacts of the Gravina Access Project alternatives on marine navigation. This letter is a follow-up to an April 2 correspondence requesting assistance from your association in the simulation process for the Gravina Access Project.

Since the last letter, the dates have changed as a result of scheduling difficulties at the Star Center; the simulations are currently scheduled for three separate weeks: April 29-May 3, May 13-17, and May 20-24. I am requesting that two pilots be present for all three weeks, but I understand that because of scheduling conflicts, more than two pilots may be required. I realize the inconvenience this rescheduling may cause; this work is important for the completion of the project's Draft Environmental Impact Statement, and proposed completion dates for that document will not allow the simulations to be postponed until after the cruise ship season. Please present your plan for accommodating this schedule to Mark Dalton or myself so that we can evaluate our options.

Because a full-mission simulator operates in real-time, it takes a considerable amount of a marine pilot's time to use real-time full-mission simulation methods. Understanding the value of the marine pilots' time, the DOT&PF is proposing to compensate participating pilots by reimbursing all reasonable direct travel expenses (travel, lodging, food, rental car) and by providing compensation in the amount of $300 per pilot per day. I cannot stress enough how important these simulations are to the project and I sincerely hope that you find these terms satisfactory.

Please contact Mark Dalton of HDR Alaska at 907/274-2000 (or mdalton@hdrinc.com) or myself at 907/465-1821 (or roger_healy@dot.state.ak.us) at your earliest convenience to confirm whether or not the schedule works for you and what marine pilot(s) will be assisting us with this endeavor. Thank you for your continued support of this important project.

Sincerely,



Roger K. Healy
Engineering Manager

CC: Mark Dalton, HDR Alaska
John Hansen, Northwest Cruise Ship Association

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

FAXED LETTER

October 8, 2002

Re: Gravina Island Access
Project No. 67698

Mr. James Helfinstine
Bridge Administrator
U.S. Coast Guard, 17th District
P.O. Box 25517
Juneau, AK 99802

Dear Jim:

Per your request and at the request of the Alaska Coastwise Pilots Association and the Southeast Pilots Association, we will extend the comment period on the DRAFT *Real Time Navigation Simulation Technical Memorandum* by The Glosten Associates until October 28, 2002. Thank you for your review, and if you have any questions, please don't hesitate to contact me at 465-1821.

Sincerely,

Roger Healy, P.E.
Engineering Manager

cc: Alaska Coastwise Pilots Association
Southeast Alaska Pilots Association

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STATE OF ALASKA

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

February ~~19~~ 20, 2003

Mr. Jim Helfinstine
Bridge Administrator
US Coast Guard, 17th District
PO Box 25517
Juneau, Alaska 99802-5517

Re: Gravina Access Project Draft STAR Center Report, Project No. 67698

Dear Mr. Helfinstine:

Thank you for your letter and comments regarding the STAR Center draft report and related documents. I appreciate you taking the time to thoroughly review the report and the accompanying technical memoranda. This letter is intended to respond to your specific comments and deepen your understanding of our environmental review process with respect to navigational impacts. It is the Department's objective to provide an accurate and concise description of these impacts in the Gravina Access Project Draft Environmental Impact Statement (DEIS). Your willingness to provide input to this effort is greatly appreciated.

Item 1 Concerning Accident Scenarios:
While discussions of potential accidents may prove to be interesting, such discussion would be largely speculative. We have analyzed the risk of allisions and groundings in the *Monte Carlo Navigation Simulation Technical Memorandum* (to be updated) prepared by The Glosten Associates, Inc. We consider allisions as extreme and unplanned events. Any further characterization of accident scenarios (e.g., spills and cleanup requirements, damage to ships and structures and related costs) would rely on broad-based assumptions with little or no factual basis.

The scope of our study is founded on the National Environmental Policy Act (NEPA); the purpose of which, as outlined by FHWA (2003), is to:

> *"Include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --*

(i) The environmental impact of the proposed action,
(ii) Any adverse environmental effects which cannot be avoided should the proposal be implemented,
(iii) Alternatives to the proposed action,
(iv) The relationship between local short-tern uses of man's environment and the maintenance and enhancement of long-term productivity, and
(v) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented" (FHWA, 2003).

Identifying and describing potential future accident scenarios would be an attempt to identify and disclose events and impacts that are beyond what is considered reasonable and foreseeable. The goal of our work is to design a bridge that will allow safe passage of ships, and the USCG's assistance is paramount to this goal.

Item 2 Concerning Charts of Marine Traffic Patterns:
The DEIS will reference the *Reconnaissance of Vessel Navigation Requirements Report* (to be updated) prepared by The Glosten Associates, Inc and other relevant documents. This report includes charts illustrating existing and potential marine traffic patterns associated with the Gravina Access Project alternatives.

Item 3 Concerning Previous Groundings/Mishaps:
We have received the background information you have provided and have used it whenever possible and appropriate; thank you again for your assistance.

Item 4 Concerning STAR Center Report Cover:
We agree there has been some confusion about the two reports and will ask that the STAR Center create an appropriate cover for their report.

Item 5 – Technical Comments on Navigation Reports

Removal of Wreck Buoy:
We will revise the Glosten report to state that the USCG has recommended in *Waterway Analysis and Management System - Tongass Narrows (March 1994)* that changing the buoy to a fixed marker would increase the maneuvering room available for large ships. We concur that this certainly would be beneficial to turning movements in the harbor and that this work should be completed at some point; however, it will not be proposed as mitigation for the Gravina Access Project.

Removal of Buoy 4"a":
We concur that removal of this shoal would improve navigability in the channel; however, we do not agree that all project alternatives would benefit equally from its removal. Due to the severe turns associated with Alternative F3—and partially with Alternatives D1 and C3(b)—these alternatives would benefit more than the other build alternatives from the removal of the shoal at Buoy 4"a". Since removal of the shoal is recommended under the No Action Alternative, we assume that it would be completed

by others at some point and is not proposed as mitigation for the Gravina Access Project.

Conclusions:
While we're not clear on your point, we do agree on the conclusions reached thus far based on the reports cited.

VTS System:
In lieu of a VTS System, which monitors vessel traffic by radar and has strict requirements for vessel movement reporting and control, we are considering recommending a Regulated Navigation Area (RNA) to control traffic within Tongass Narrows. Vessels navigating within an RNA are subject to compliance with regulations established under 33 CFR part 165 (Title 33 Code of Federal Regulations Part 165). Under an RNA, vessel traffic is not actively monitored for compliance, but infractions are violations of federal law and can be dealt with accordingly.

Degree of Difficulty:
Your point is a valid one. However, at this time, we don't feel that normalizing the data for speed would prove to be fruitful. Considering the channel differences, the change of speeds in West, East, and North Channels associated with turns around Pennock Island, 180-degree turns leaving the dock, etc., using the average speed through one channel and normalizing it for the other channels is inconclusive. Adding consideration for currents and winds would further complicate and confuse any effort to "normalize" speed.

Speed:
This was a simulated exercise using large cruise ships, which have different navigational requirements and characteristics than Buoy Tenders.

Vessel speeds during the simulations were predicated upon what was necessary for pilots to control the vessels in the conditions indicated. It is acknowledged that this may not relate to a "real world" situation, but it is illustrative for vessel handling purposes. The actual transit speeds of USCG Buoy Tenders in the North and East Channels have no bearing on cruise ship speeds used in the simulations. We do concur with the points raised in your discussion of the maneuvering characteristics of large vessels and piloting techniques used in transiting restricted and congested waterways.

Aberrancy:
Since the time of the STAR Center navigation simulations, we are considering channel modifications to Alternative F3 that would effectively widen the navigational channel to 750 feet: the center 550 feet would have a minimum depth of 40 feet and both sides of the channel would have a minimum depth of 30 feet. This modification does not include widening the 550 feet of navigational span at the bridge. We are in the process of revising the *Monte Carlo Navigation Simulation Technical Memorandum* to reflect this channel modification. The probability of allisions or grounding in the North Channel is identified in the current version of the *Monte Carlo Navigation Simulation Technical*

Memorandum and I encourage you to consult that document for more information. The Monte Carlo analysis represents a worst-case scenario because there is no historical basis (number of allisions in Tongass Narrows) on which to calibrate the model. The existing navigational restrictions presented by Idaho and California Rocks or the West Channel constrictions create a greater potential for allision than any proposed bridge at any location.

Traffic Patterns:

We agree that Tongass narrows is a very busy waterway and that the amount of traffic using the waterway should be acknowledged. We feel that the current draft of the DEIS accurately and thoroughly depicts waterway traffic in Tongass Narrows. The *Tongass Narrows Voluntary Waterway Guide* is mentioned in the current draft of the DEIS and in the draft *Reconnaissance of Vessel Navigation Requirements*, tab 3 in the navigational issues binder of technical memoranda. The *Monte Carlo Navigation Simulation Technical Memorandum* does include tracklines that would be used for the different Gravina Access Project alternatives. These could be augmented with a figure in the DEIS.

I want to thank you again for your comprehensive review of the report and associated documents. I look forward to discussing your comments further with you during the week of February 24th. Thank you for your continued involvement with the Gravina Access Project.

If you have any questions or comments, please do not hesitate to contact me at (907) 465-1821.

Sincerely,

Roger Healy, P.E.
Engineering Manager

cc:
Cmdr Steven Rothschild, USCG
Tim Haugh, FHWA
Mark Dalton, HDR Alaska

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

December 30, 2002

Captain Dale Collins, President
Southeast Alaska Pilots Association
1621 Tongass Avenue
Suite 300
Ketchikan, AK 99901

Subject: Gravina Access Project, Final STAR Center Report

Dear Captain Collins:

As you may be aware, the ADOT&PF and HDR Alaska have been working closely with the STAR Center over the last couple of months to finalize the center's report on the full mission simulation conducted last May and June of cruise ship navigation for each of the Gravina Access Project alternatives. Enclosed you will find the latest version of that report. Also enclosed in a separate binder are previous studies conducted on behalf of ADOT&PF for the Gravina Access Project. These studies address various aspects of navigational issues in Tongass Narrows and are provided to you as background information only.

Your review of the factual information presented in the enclosed STAR Center report would be greatly appreciated. I ask that you provide your comments on the report to me by January 31, 2003. I also want to stress that this information is provided for your use only. We'd appreciate your assistance in preventing misinformation about the draft report from being released until we can release a final document. The public will have the opportunity to view the report as soon as the technical review has been addressed by the STAR Center.

Please contact me at 907/465-1821 (or email me at roger_healy@dot.state.ak.us) if you have questions. Thank you for your timely attention to this matter.

Sincerely,

Roger K. Healy
Engineering Manager

CC: Tim Haugh, FHWA
Mark Dalton, HDR Alaska

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

December 30, 2002

Captain Dale Collins, President
Southeast Alaska Pilots Association
1621 Tongass Avenue
Suite 300
Ketchikan, AK 99901

Subject: Gravina Access Project, Final STAR Center Report

Dear Captain Collins:

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Please contact me at 907/465-1821 (or email me at roger_healy@dot.state.ak.us) if you have questions. Thank you for your timely attention to this matter.

Sincerely,

Roger K. Healy
Engineering Manager

CC: Tim Haugh, FHWA
Mark Dalton, HDR Alaska

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

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16590
July 9, 2003

Mr. Reuben Yost
State of Alaska Department of
Transportation and Public Facilities
Design & Engineering Services Division
Southeast Region-Design
6860 Glacier Highway
Juneau, Alaska 99802

SUBJECT: Gravina Access Project, Preliminary Draft Environmental Impact Statement

Dear Mr. Yost:

We have reviewed and have no significant navigational comments at this time on the preliminary Draft Impact Statement recently provided. We appreciate your efforts to evaluate the significant navigational impacts on large passenger vessels if bridge structures were placed at various locations across Tongass Narrows near Ketchikan, Alaska as proposed in the Gravina Access Project. We echo your executive summary that the U.S. Coast Guard has consistently voiced strong support for an alternative that provides for large vessel transits in the East Channel of Tongass Narrows. It appears that your recently selected Preliminary Preferred Alternative F1 may in fact be the best of the build alternatives because it would have the least negative affect on navigation.

It is my understanding that the cruise ship operators and Alaska State Ferry pilots familiar with this waterway may be responding with more specific comments. These subject matter experts participated as members of an Interdisplinary Team (IDT) working in conjunction with the FHWA/Coast Guard/and AKDOT&PF to investigate and identify critical navigational issues and/or impacts that could arise as a result of constructing any of the various bridge proposals.

Our Coast Guard review panel consisting of members of our Marine Safety Office, Captain of the Port-Southeast, and our Aids to Navigation Office, look forward to reviewing comments directed to the preliminary draft, the draft, and those provided as a result of the proposed FHWA/Coast Guard joint public hearing tentatively slated for this fall. It appears that there will be several opportunities to ensure that Coast Guard concerns and issues are adequately addressed in the navigational section of the EIS.

We look forward to contributing to the EIS process prior to it being finalized. Thank you for the opportunity to comment on this important project.

J. N. HELFINSTINE
District Bridge Program Administrator
Aids to Navigation Branch
U.S. Coast Guard
by direction of the Commander

Copy: Federal Highway Administration

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

P.O. Box 25517
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16590
January 31, 2003

Mr. Roger Healy, P.E.
State of Alaska Department of
Transportation and Public Facilities
Design & Engineering Services Division
Southeast Region-Design
6860 Glacier Highway
Juneau, Alaska 99802

SUBJECT: Gravina Access Project, Draft STAR Center Report

Dear Mr. Healy:

We have reviewed and are forwarding comments on the draft Real Time Navigation Simulation Study (STAR Center Report) as you requested. This report evaluated navigational impacts on large passenger vessels if bridge structures were placed at various locations across Tongass Narrows near Ketchikan, Alaska as proposed in the Gravina Access Project. The study conducted at the RTM STAR Center in Dania Beach, Florida during three sessions between April 29 and May 22, 2002, employed a full-mission ship handling simulator operated primarily by cruise ship operators and Alaska State Ferry pilots familiar with this waterway. These subject matter experts participated as members of an Interdisplinary Team (IDT) working in conjunction with the FHWA/Coast Guard/and AKDOT&PF to investigate and identify critical navigational issues and/or impacts that could arise as a result of constructing any of the various bridge proposals.

After receiving this draft report our agency put together an internal Coast Guard review panel consisting of members of our Marine Safety Office, Captain of the Port-Ketchikan, and our Aids to Navigation Office, to ensure that Coast Guard concerns and issues were adequately addressed in this particular navigational impact study. In addition to responding to this particular study we are providing comments applicable to earlier navigational studies you forwarded as background information. It is our understanding that all of these studies will be placed in a draft Environmental Impact Statement (EIS) presently being prepared. Our comments are attached as an enclosure. It is our understanding that the other IDT members who participated in the development of the STAR Center Report are forwarding their comments directly to your office.

We look forward to contributing to and commenting on the preliminary draft EIS section dealing with navigational impacts prior to it being publicly distributed as well. Thank you for the opportunity to comment on this important project. Working together as a team we can meet our shared objectives of evaluating the safety, environmental, and operational impacts that the various bridge alternatives might have on navigational interests transiting Southeast Alaskan waters.

J. N. HELFINSTINE
District Bridge Program Administrator
Aids to Navigation Branch
U.S. Coast Guard
by direction of the Commander

Copy: Federal Highway Administration

Enclosure: Comments to Draft STAR Center Report and previous navigational studies

GRAVINA ACCESS PROJECT-DRAFT STAR CENTER REPORT COMMENTS

The following comments are provided to ensure adequate discussion on navigational impacts for each of the alternatives within the environmental review under consideration and that it be sufficiently complete so that the Coast Guard can take final action without supplementing the FHWA document

1. Identify and describe accident scenario events and obtain data that describes the costs associated with potential allisions, collisions, or groundings that may be attributed to all of the bridge alternatives (consequence analyis). These costs should include direct and indirect cost to individual vessels, industry disruptions as a whole, bridge structure, and environmental/natural resource impacts. Costs associated with response to accident/spill to include mobilization of people and equipment, cleanup, etc. in the Alaska environment should be discussed and articulated.
2. Suggest that chart be provided illustrating existing marine traffic patterns and others illustrating changes attributed to each alternative.
3. We have provided information and locations of previous groundings/mishaps in the project area for your review.
4. At present it is difficult to distinguish that *The Gravina Access Project "Real Time Navigation Simulation Study (STAR Center) Technical Memorandum" Draft-Rev C* prepared by the Glosten Associates, Inc. is a separate report from The draft RTM Star Center Report. It appears that the RTM Star Center Report is missing its cover. Perhaps this would help distinguish it as being, although a "companion" report, independent of the Glosten prepared report.
5. The following are general technical comments pertaining to ship handling/vessel movement issues as found in all the various navigational reports to include Real Time Navigation Simulation Study (STAR Center) Technical Memo, Monte Carlo Navigation Simulation Technical Memo, Reconnaissance of Vessel Navigation Requirements updated Report, Gravina Access project Consequences of Various Channel Closures to large Shipping Technical Memo, and the Gravina Access Project Wind Climatology Technical Memorandum:

Removal of Wreck Buoy:
Not seen as mitigation. In your Oct '01 report this was questioned three different times (one for each scenario) and determined to not be mitigation in any case. In the Oct '02 report this wreck was seen as a definite mitigation in all cases. Removing this wreck only increases the distance to shoal (defined as 5 fathoms) by .06 nm, or 360 feet. Further, there is an additional 3.5 fathom shoal .15 nm, 900 ft to the East of this wreck which limits the effectiveness of taking out the wreck. Ships still need room to swing while at anchor. 360 ft to move to the north is only of limited value when talking about 900 ft ships. There is also no guarantee that removing the wreck will provide water depths of over 5 fathoms.

Removal of Buoy 4"a":
This buoy marks a 4-fathom shoal directly west of the cruise ship dock. If the shoal were to be removed, this would equally mitigate all options. It has been the pilots' desire, even without considering a bridge, to have this shoal and buoy removed as it makes maneuvering near the dock more difficult. However, this channel is not a "Federally Authorized Channel" and therefore it does not fall under the purview of the Army COE to maintain a depth.

Conclusions:
A lot of information can be gleaned just by reading the conclusions of the studies. On page 47 of the Oct '02 report it is stated, "the other significant conclusion is that the measures of relative risk developed by the fast time simulation are upheld". The normalized risk factors estimate that the West channel is 24% greater risk than the East. What can also be inferred from the table is that the East Channel is twice as risky as the North Channel, and the West is 168% more risky than the North. It must be kept in mind that these relative risk factors are merely for the narrowest points in the channels. They do not, and cannot, predict additional risk based on channel congestion, fog, altered traffic patterns or required maneuvers outside the study area. This conclusion not only upholds the "Monte Carlo" report, but also the Oct '01 report which states on page 7-1 "Either closing the Tongass Narrows in the vicinity of Charcoal Point or closing East Channel to large cruise ships would require cruise ships routinely accomplishing difficult maneuvers," and continues by saying that "channel closures to large cruise ships could also adversely impact operations of these vessels as a result of....(iv) decreases in safety due to the need for more complex maneuvers in congested areas". The STAR Center report final conclusions also bear out the relative risk factors by rank ordering the three bridge options by "navigational concerns only" as North, East then West.

VTS System:
It is offered as mitigation that "a VTS system would be a clear and unequivocal mitigation for the F3 option". No mention is included as to who would fund, build, and man such a system or what the requirements for using the system might be. The nearest Traffic Service to Ketchikan is that of Canada. In that system, only vessels of 300 gross tons or greater, including towing vessels and vessels carrying dangerous cargo are required to report in. If similar rules were used in Ketchikan, upwards of 1000 vessels (table 16, Oct '01) would not be required to report to the service and this doesn't account for the 3-4000 transient vessels. It is very possible that adding a VTS could give a false sense of security to larger vessels, thinking all traffic was being monitored, when the reality might be very different. Also, the VTS would be required to account for the 3 active float plane "runways", something they are not designed to do.

Degree of Difficulty:
The number of adjustments to rudder, engine rpm and thrusters depends on more than just apprehension. This is talked about to a degree throughout this section (2.1.6 thru 2.1.9) but doesn't account for some very important factors. Speed, or lack thereof, is discussed as a possible reason for more adjustments during the southbound East channel runs "ships were not quite up to speed", but the

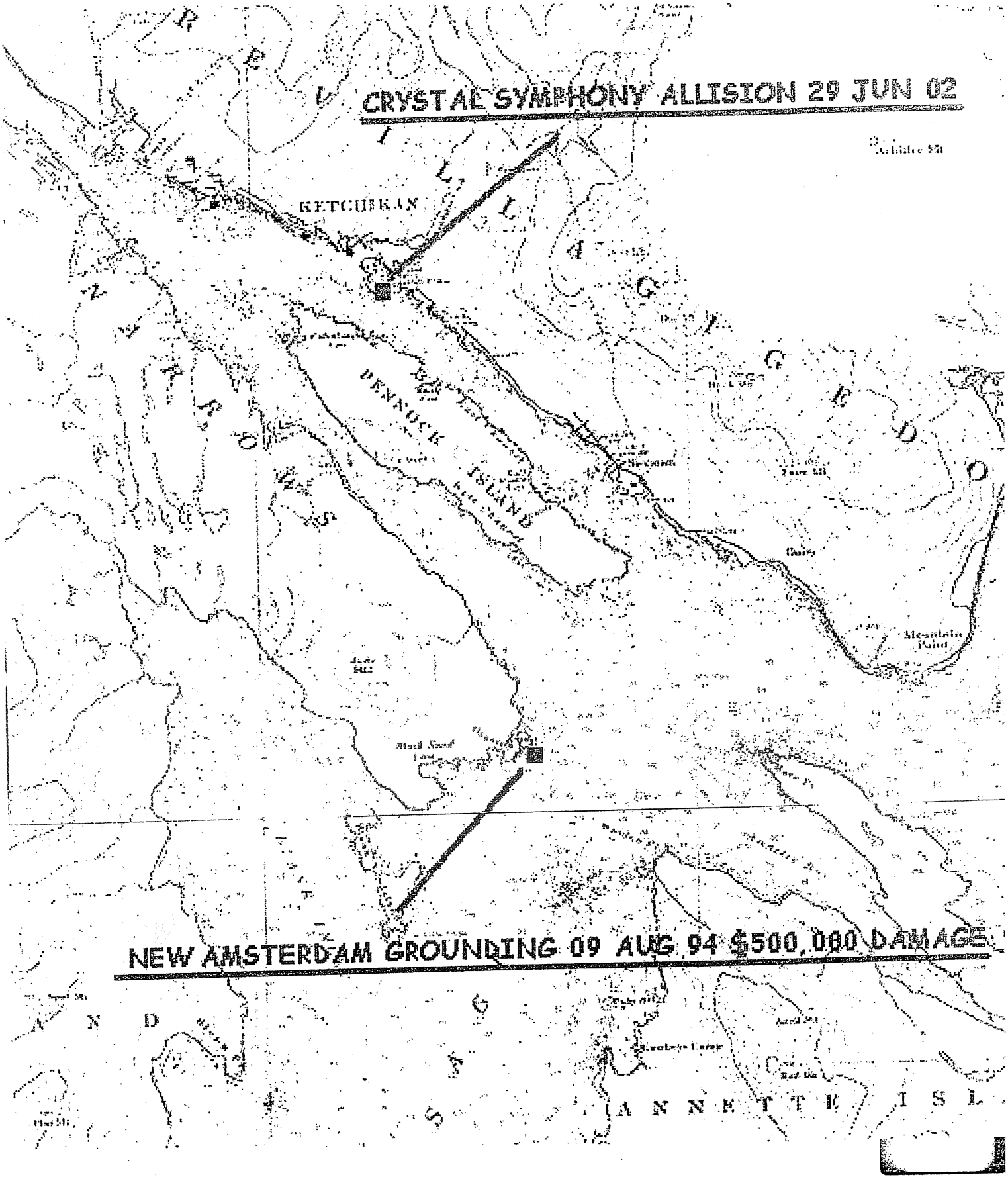
use of nearly a knot more speed on average in the West channel is not mentioned as a possible factor for why there may be less adjustments. While it may be that the number of adjustments is "generally accepted" as a measure of difficulty, it is also generally accepted that increased speed normally results in less adjustments as a ship tends to track straighter the faster it goes. The normalization of the data for the length of the particular track used is appreciated, but there should be a normalization process for the speed used as well.

Speed:
The speeds used to transit these channels were actually quite fast and are a concern as to the accuracy of how well the data translates to the real world. Commanding Officers of the Coast Guard's newest 2000 ton, highly maneuverable Buoy Tenders, do not use near the speed transiting the East or North channels as was reached, on average, during this study. The reasons include, but are not limited to, traffic congestion and maneuverability. Bow and stern thrusters are great tools to assist ship captains in tight maneuvering situations. However, they are only effective up to a certain forward speed, typically about 5 knots. A pilot transiting upwards of 10 knots would not leave himself any maneuvering advantage of thrusters. As ships slow down, environmental effects are magnified, resulting in more stressful situations and more use of all available means to keep them on track. It is anticipated that slowing down to speeds normally used in tight maneuvering situations would show a marked increase in those adjustments used to define the degree of difficulty. However, it is doubted that in actual, real world scenarios that large cruise ships would go this fast considering the proximity of shoals. Adding congestion to the mix would also dictate that slower, more prudent speeds are used, increasing the difficulty as the winds pick up. It would be interesting to see how the number of adjustments would change based on the actual speeds used in practice in tight quarters. A discussion should be included as to why the pilots chose to use as much speed as they did.

Aberrancy:
The draft report's section on Probability of Aberrancy (sections 2.1.1 thru 2.1.4) is an excellent use of statistical data. However, it focuses on a ship alliding with a bridge support with a bridge of 550' horizontal clearance. This is somewhat misrepresented in the Discussion section (2.1.4) where it states that "the probability of allision for a 550' bridge opening is less in the West Channel with the F3 option than it is in either the North Channel of East Channel". It should be clearly noted in the final report that the proposed location of the bridge under the F3 option only offers 476' of available navigational width. Thus a ship would run aground prior to hitting the bridge support. This is not the case in the other channels. Further illustration is needed to provide the probability of aberrancy for the navigational opening at the bridge locations, as well as grounding in either channel. Based on the proposed height of the "low" bridge in the F1 and F3 options, a discussion of the probability of collision should be included due to all medium and large traffic being funneled into the same channel.

Traffic Patterns:
The STAR Center report correctly admits that other traffic is inherently unpredictable and introducing it would make repeatability impossible. That said, discussion of traffic and traffic patterns is mandatory. Tongass Narrows is the busiest waterway in Alaska. For the past few years, all traffic operating in the Ketchikan area has been abiding by the Tongass Narrows Waterways Users Guide. Although a voluntary guide, it has been

working quite well. Nowhere, in any report, is there a mention of this guide. The status quo is for small to medium vessels to use the West Channel, leaving the East for larger ships. This is especially true for vessels transiting the Narrows without stopping in Ketchikan. That way, these vessels don't set up crossing situations at the north end of Pennock Isl. By voluntarily keeping up this traffic pattern, there have been no accidents. Designing the waterway to increase unpredictable crossing traffic as would occur in the F3 option would not be a good navigational decision. Under section 6.3.2 of the Oct '01 report it is noted, "The maneuver around Pennock Reef, the passage of West Channel, and the increased traffic through the anchorage and across tender traffic lanes all have adverse safety implications." The section also speaks to adversely modifying the current natural separation of shipping if the East channel were open to medium sized vessels. And goes on to say, "if East Channel were blocked to both large and medium sized shipping (as would be the case with Alternative F3), then congestion in West Channel would be exacerbated." The effect of traffic and traffic patterns cannot be under stated and must be given full consideration in the final report.


CRYSTAL SYMPHONY ALLISION 29 JUN 02
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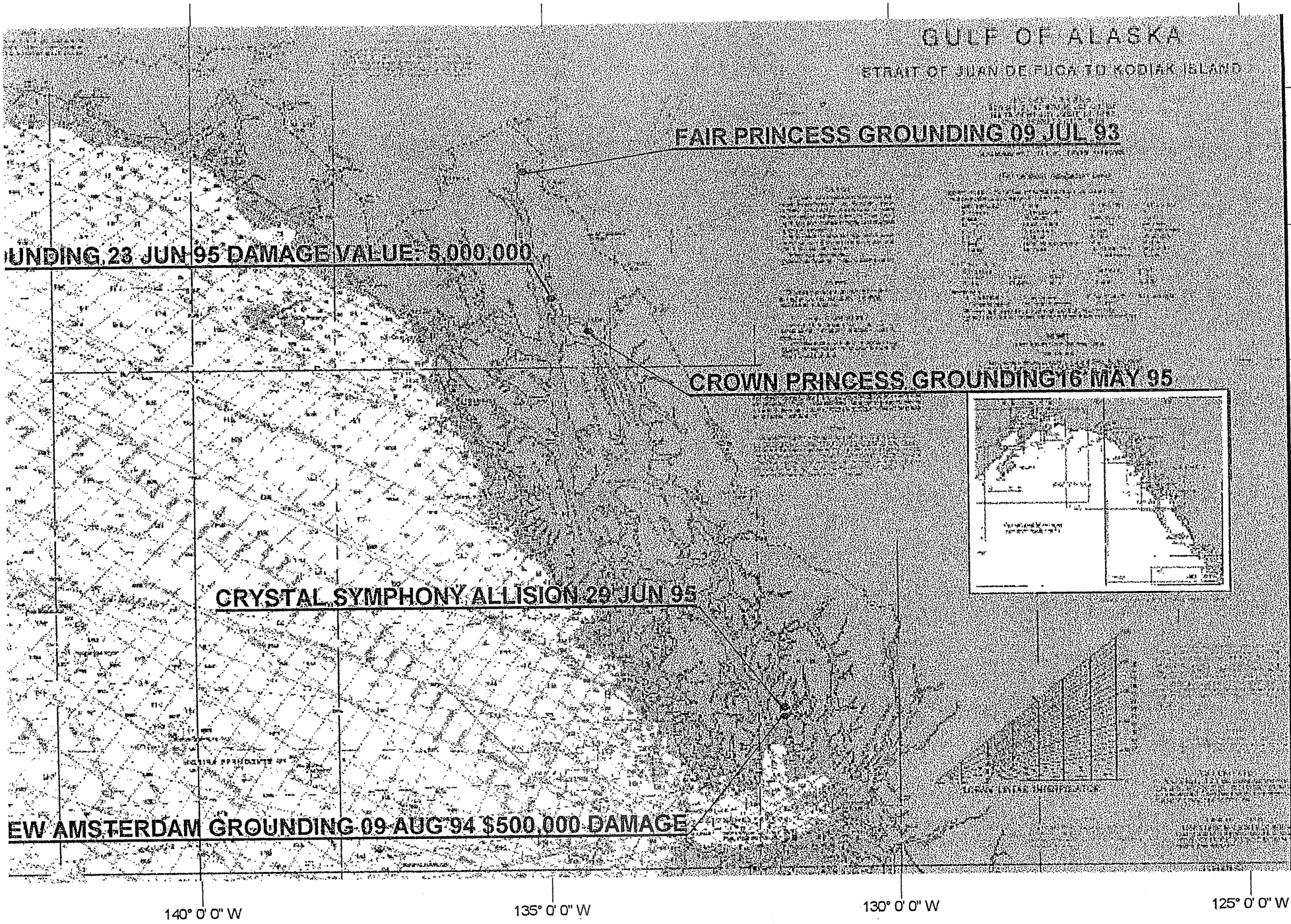
PENNOCK ISLAND
NEW AMSTERDAM GROUNDING 09 AUG 94 $500,000 DAMAGE



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STATE OF ALASKA

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

November 27, 2002

Mr. Jim Helfinstine
Bridge Administrator
US Coast Guard, 17th District
PO Box 25517
Juneau, Alaska 99802-5517

Re: Gravina Access Project
Project No. 67698

Dear Mr. Helfinstine:

I have received the November 7, 2002 letter from Captain Houck to Dave Miller expressing interest in the RTM Star Center report. I would like to meet with you soon to discuss the Star Center report and the steps to its completion. Star Center staff will provide us with a revised draft report soon that we can then review. Our intent is to have the report completed within the next few weeks.

As you know, the Department of Transportation and Public Facilities was concerned about the report's lack of independent analysis. In many instances, anecdotal information was presented as the Star Center's analysis. After discussing this and other issues with Star Center staff, they are revising the report to address these and other concerns. For the record, the marine pilot's comments will be retained in the report. We also have no intention whatsoever to delete discussion of environmental factors from the document. We do not agree, however, that discussion of economic impacts is appropriate in this report.

The Department is also seeking additional analysis in the Star Center report on the following issues, which affect the assessment of navigation issues for large cruise ships in Tongass Narrows.

- Quantitative discussion of heel angles and vessel speed around Pennock Reef
- Discussion of the factors that contributed to the runs that go bad.
- Vessel information related to extreme maneuvering characteristics.

If the Coast Guard knows of other issues to be considered in the Star Center report please advise.

The November 7 letter also makes reference to the Coast Guard's need to review the report and "make a conclusion based upon it." While we agree that the report will be useful in the evaluation of marine navigation issues, it is not the only report that should be consulted. The *Real Time Navigation Simulation Study (Star Center)* Technical Memorandum (Glosten Associates, August 2002) and other resources prepared for the Gravina Access Project should be consulted. The Star Center report is another tool to be used to consider the various alternatives for improved access between the community of Ketchikan and Gravina Island.

If you have any questions or comments, please do not hesitate to contact me at 465-1821.

Sincerely,

Roger Healy, P.E.
Engineering Manager

U.S. Department of Transportation
United States Coast Guard

Commander
Seventeenth Coast Guard District

P.O. Box 25517
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5800
November 7, 2002

Mr. David C. Miller
Division Administrator
Federal Highway Administration, Alaska Division
P.O. Box 21648
Juneau, Alaska 99802

Dear Mr. Miller:

Thank you for hosting the Gravina Access project meeting held on 28 October. The meeting was a timely reminder of the importance of all the agencies involved to continue working as an interdisciplinary team (IDT) to achieve a timely, objective review of the available alternatives.

The Coast Guard is dedicated to continuing the process begun on 27 September 1999 when, pursuant to NEPA and TEA-21, the FHWA sponsored a federal interagency initial scoping meeting. As a cooperating federal agency and IDT member, the Coast Guard seeks to work closely with your office and the project staff from the State of Alaska, Department of Transportation & Public Facilities (AK DOT&PF). Working together as a team the IDT can ensure that the NEPA and TEA-21 review process is expedited and thorough. The recent 28 October meeting was a necessary step in the process following the IDT's decision in March of this year to use the RTM STAR Center. It was important to assess whether RTM STAR met its two objectives of evaluating the various proposed bridge locations and the safety and operational impacts that the alternatives might have on passenger cruise vessels transiting the waterway to and from Ketchikan.

As you know, the reason the Coast Guard is a cooperating agency in the NEPA process is because it is the federal agency responsible for asserting exclusive federal jurisdiction over all bridges over all navigable waterways of the United States. That is, we issue bridge permits. Along with other duties, the Coast Guard is statutorily responsible to preserve the public right of navigation. Bridges across the navigable waters of the United States are considered obstructions to navigation, permitted only when they serve the needs of land transportation. While the public right of navigation is paramount to land transportation, it is not absolute. This right may be diminished to benefit land transportation, provided that the reasonable needs of navigation are not impaired. To reduce duplication of effort, the Coast Guard serves as a cooperating agency and relies upon the overall bridge project EIS as its NEPA documentation for the bridge permit.

The potential impact of any Gravina Access bridge on the reasonable needs of navigation is enormous. The Tongass Narrows is the most congested waterway in Alaska and is economically critical to all of Southeast Alaska. The users consist of the State Ferries, the Alaska cruise ships,

the Ketchikan commercial and sport fishing fleets, tug and barge traffic carrying almost all the food, fuel, and consumer items (annually 1.2 million tons of commodities) bound for the communities in Southeast Alaska, the tour boat and whale watching operators, sea kayak groups, small private commuting boats, and the largest float plane operations in Alaska. Ketchikan's airport is located on Gravina Island, with the runway aburting Tongass Narrows. As a result of the huge, diverse mix of users, this project poses *intermodal* transportation concerns between water-borne, air-borne, and bridge highway traffic.

Like you, we are very concerned that the process exercised by the state and federal members of the IDT rigidly observe the standards set by NEPA and TEA-21. It is only through strict adherence to those standards that our duties to the Department of Transportation, the Congress, and the public can be achieved. This is why 28 October meeting was so important to getting the process back on track.

As the federal agency responsible for bridge permitting, the Coast Guard needs to ensure that final project selection does not impair the reasonable needs of navigation. The early steps taken by the IDT, i.e. the initial scoping meeting in September 1999, the navigational familiarization field trip in May 2000, and the decision to use the RTM STAR center to objectively analyze the impact on the reasonable needs of navigation posed by the various alternatives, were steps that facilitated the process and rendered data relevant to the Coast Guard's permit decision. We have been concerned recently about the perception that the State's primary focus on a single alternative, and its subsequent decision to revise the RTM STAR report, had slowed down the process and made it more difficult to develop objective information with which to make decisions. We were pleased to see that the draft RTM STAR report was finally made available for our use and comment. The Coast Guard looks forward to working with the other IDT members in preparing the final version of this vitally important, federally funded, independent analysis.

During the meeting, the AK DOT&PF representatives indicated that there were a number of reasons for revising the draft RTM STAR report. Among these are its brief discussion of economic impacts, the "subjective" commentary from the pilots, and the environmental factors like current and wind. The Coast Guard would advise against deletion of these elements, especially the pilot commentary and environmental data. Though neither pilot commentary nor environmental data are dispositive by themselves, this information is directly relevant to the Coast Guard's permitting decision. All of the information in the draft RTM STAR report should be available as part of the project EIS. Deletion of the information now will only require its revival later. Hence this revision could only create further delays as deleted information is retrieved in a different form later.

The Coast Guard is concerned about further delays in the review process. It has already been delayed by the delivery of an incomplete draft report, by the IDT concerns about the quality of the draft report, and by the IDT's requirement that RTM STAR revise its report. It will take time for us to assess the final version and make a conclusion based upon it. If we are given an opportunity to work on the proposed revisions to the draft report with the other IDT members, this final review will be expedited. In order to keep the process on track and timely, please have

your staff contact Mr. Jim Helfinstine, my subject matter expert, so that he can participate in rendering any proposed revisions to the draft report. He can be reached at 463-2268.

Please let me know if you have any questions. I can be reached at 463-2025.

Sincerely,

R. R. HOUCK
Captain, U.S. Coast Guard
Chief of Staff
Seventeenth Coast Guard District

Copy: Mr. Bob Doll, Southeast Regional Director, AK DOT&PF
Commander, Seventeenth Coast Guard District (o, oan, dl)

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DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

FAXED LETTER

October 8, 2002

Re: Gravina Island Access
Project No. 67698

Mr. James Helfinstine
Bridge Administrator
U.S. Coast Guard, 17th District
P.O. Box 25517
Juneau, AK 99802

Dear Jim:

Per your request and at the request of the Alaska Coastwise Pilots Association and the Southeast Pilots Association, we will extend the comment period on the DRAFT *Real Time Navigation Simulation Technical Memorandum* by The Glosten Associates until October 28, 2002. Thank you for your review, and if you have any questions, please don't hesitate to contact me at 465-1821.

Sincerely,

Roger Healy, P.E.
Engineering Manager

cc: Alaska Coastwise Pilots Association
Southeast Alaska Pilots Association

25A – T34LH

FILE 07072-144

U.S. Department of Transportation
United States Coast Guard

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Seventeenth Coast Guard District

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16590
October 8, 2002

Roger Healy, P. E.
State of Alaska Department of
Transportation and Public Facilities
Design & Engineering Services Division
6860 Glacier Highway
Juneau, Alaska 99802

Dear Mr. Healy:

Thank you for delivering the draft (Rev A) "Real Time Navigation Simulation Study (STAR Center) Technical Memorandum" prepared by The Glosten Associates for your proposed Gravina Island Access project. As you know the goal was that it would summarize the complete results of a real-time full-mission simulation study of large cruise ship transits under several bridge alternatives in Tongass Narrows carried out at the Simulation, Training, Assessment & Research (STAR) Center in Dania, Florida, during three sessions between April 29 through 24 May 2002.

The draft report you provided us includes the "raw data" from the STAR Center such as a description of the procedures and models, environmental conditions simulated (wind speed and direction, currents, visibility, and run direction) and comments from individual pilots on various simulated runs.

After consultation with Mr. Dave Miller of the Federal Highway Administration, we were informed that you believe that the STAR Center draft report went outside the scope set for it. Unfortunately, the incomplete nature of the STAR Center report makes us unable to review and comment upon it formally. Mr. Miller proposed a meeting be scheduled at the end of the week of 14 October where the Coast Guard and the Federal Highways could work with you to prepare improvements and suggestions to the STAR Center so that a complete and accurate final report can be rendered for formal review. Please contact Tim Haugh, of the FHWA to schedule this meeting.

Sincerely,

J.N. HELFINSTINE
Seventeenth Coast Guard District
Bridge Program Administrator
U.S. Coast Guard
By direction of the Commander

Copies: (1) Federal Highway Administration

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

DESIGN & ENGINEERING SERVICES DIVISION
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October 3, 2002

Re: Gravina Access
Project No. 67698

Mr. James Helfinstine
Bridge Administrator
US Coast Guard, 17th District
PO Box 25517
Juneau, AK 999802

Dear Jim:

Enclosed is the Draft report from the Star Center. It is a supplement to the Glosten report. It contains:

- Summary Report - edited
- Appendix A - Run Matrix
- Appendix B - Week One Pilot Evaluation Forms
- Appendix C - Week Two Pilot Evaluation Forms
- Appendix D - Week Three Pilot Evaluation Forms
- Appendix E - Final Evaluation Forms
- Appendix F - Week One Track Plots
- Appendix G- Week Two Track Plots
- Appendix H - Week Three Track Plots

As stated over the phone, the remainder of the Summary Report is currently under revision for factual content, and is unsuitable for distribution. As stated in my previous letter, we are requesting comments by October 10th. If you have any questions, please don't hesitate to contact me at 465-1821.

Sincerely,

Roger Healy, P.E.
Engineering Manager

cc: Southeast Pilots Association
Coastwise Pilots Association

25A – T34LH

U.S. Department of Transportation
United States Coast Guard

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16590
October 1, 2002

Rec'd Oct 3, 2002
Fax

Roger Healy, P. E.
State of Alaska Department of
Transportation and Public Facilities
Design & Engineering Services Division
6860 Glacier Highway
Juneau, Alaska 99802

Dear Mr. Healy:

Thank you for recently providing the draft (Rev A) "Real Time Navigation Simulation Study (STAR Center) Technical Memorandum" prepared for the Gravina Island Access project. This report presents the results of a full-mission real-time simulation study of large cruise ship transits under several bridge alternatives in Tongass Narrows carried out at the STAR Center in Dania, Florida, during the weeks of 1 May through 22 May 2002. It is my understanding that we would also receive the companion report prepared by the RTM Star Center.

We have not received this report as yet. Please provide us this report and allow us 30 days to review and provide comments to finalize this report as we agreed earlier. It is my understanding that this companion report contains a complete description of the procedures and models, environmental conditions simulated (wind speed and direction, currents, visibility, and run direction), as well as their recommendations regarding navigation at each of the three proposed bridge sites. This information is vital for us to provide an objective analysis of the probability of an allision with any of the three bridge options being considered. In addition, we would like to evaluate the degree of difficulty and apprehension expressed by a cross section of pilots during these simulations.

Sincerely,

J.N. HELFINSTINE
Seventeenth Coast Guard District
Bridge Program Administrator
U.S. Coast Guard
By direction of the Commander

Copies: (1) Federal Highway Administration

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

October 1, 2002

Rear Admiral James Underwood
United States Coast Guard
17th District
709 West 9th Street
Juneau, Alaska 99801

Subject: Gravina Access Project, Review of the Star Center Report

Dear Rear Admiral Underwood:

On September 20, I hand delivered three copies of the Star Center Report for your review and comments. As you know, we have released this report only to you and the two Ketchikan Pilot Associations because of an agreement to seek your review before public distribution of the report. Because the public and other groups are eager to see the results of the Star Center simulations, the first purpose of this letter is to ask *that I receive your comments on the Star Center Report no later than Thursday, October 10.* After we receive your comments, we can then review the comments and make any necessary changes to the document so that we can release the report to the public.

The second purpose of this letter is to reiterate that, per our agreement, *the information contained in the report is confidential and should not be shared with anyone outside your organization.* I certainly cannot stress this point enough and am grateful for your cooperation in this matter.

Please contact me at 907/465-1821 (or roger_healy@dot.state.ak.us) if you have questions about the report. Thank you for your continued participation in this important project.

Sincerely,

Roger K. Healy
Engineering Manager

CC: Mark Dalton, HDR Alaska
Jim Helfinstine, USCG

Kristen

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

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DESIGN & ENGINEERING SERVICES DIVISION
SOUTHEAST REGION - DESIGN

April 12, 2002

Rear Admiral Thomas Barrett, Commander
US Coast Guard, 17th District
PO Box 25517
Juneau, AK 999802

Subject: Gravina Access Project Full Mission Simulation, Project #67698

Dear Admiral Barrett:

The Department of Transportation and Public Facilities (DOT&PF) is planning to conduct full mission vessel simulations of the Gravina Access Project bridge alternatives at the Star Center in Dania, Florida. The work is scheduled during the period April 29th through approximately May 11th. Because of serious time constraints at the Star Center, the simulation work will be conducted in the evenings from approximately 6 pm to midnight each day. We are seeking Coast Guard representation in Florida for the initial simulation calibration and early vessel tests, approximately April 29th through May 1st.

I am pleased to solicit your nominations for U.S Coast Guard representation. It would be most useful if at least one of your attendees were familiar with shiphandling and if we could receive the names of your attendees by April 17th. DOT&PF will cover direct expenses for your representatives to participate in the simulation observation during the dates specified. We do not believe attendance during the entire period is necessary. DOT&PF and Consultant staff will generally attend during this same timeframe to control costs. Of course, staff specifically engaged in the technical aspects of the simulation exercise will attend during the entire time.

We have secured commitments for two marine pilots each from both the Alaska Coastwise Pilots Association and the Southeast Alaska Pilots Association to participate. We have Captain Bill Wright, Senior Vice President for Environment, Safety, and Security from Royal Caribbean International as the primary cruise industry representative. We look forward to US Coast Guard participation in this important evaluation step for the Gravina Access Project.

My point of contact is Roger Healy at 465-1821.

Sincerely,

Bob Doll
Southeast Regional Director

Cf: Mark Dalton, HDR Alaska

4.2.2

Dalton, Mark

From: Helfinstine, James [JHelfinstine@CGAlaska.USCG.mil]
Sent: Monday, March 20, 2000 1:30 PM
To: 'Dalton, Mark'
Cc: Mikesell, John; Potdevin, James CDR; Lorigan, Robert CDR
Subject: RE: Gravina

Mark, send me an e-mail with the points raised during the recent meeting between HDR reps in the Seattle area and my counterpart at the 14th Coast Guard District. I will address each. I did in fact have a lengthy discussion with John Mikesell last week and brought up the points you and I had discussed. As I stated earlier John's role in this project is as a consultant. Of particular interest to you, perhaps, is further input on the following items that were discussed:

1. The Coast Guard would not accept any bridge design that would entail closing off Tongass Narrows.
2. Developing a one-way traffic scheme is not out of the question, but would have to be discussed,developed, and approved by of the Capt. of the Port, i.e. Marine Safety Office, Juneau (CDR Robert Lorigan). I understand that a voluntary one-way traffic scheme is already being utilized by the cruise line industry in Tongass Narrows.
3. The need to develop a modeling/simulated vessel movement study will not be decided until after John Mikesell and myself complete our field trip in May. We need to see the maneuverability restriction issues firsthand and discuss some of these issues with the S.E. Alaska Pilot, Ass.. They will have some valuable insight and input. John and I are still looking at the 2nd week of May to do our site visit with a follow-up in Seattle afterwards to meet with the cruise line reps..

In the future, let's send an e-mail or some other record to ensure that items discussed during meetings are noted and addressed. Thanks.

-----Original Message-----
From: Dalton, Mark [mailto:mdalton@hdrinc.com]
Sent: Saturday, March 18, 2000 6:01 PM
To: 'Helfinstine, Jim'
Subject: Gravina

Hello Jim-

If you have a moment on Monday please give me a call. I'm wondering if you had a chance to speak with John Mikesell about the Gravina Access Project. I just want to review some of the points he raised with our staff during the meeting in Seattle on Feb. 23.

Thanks,

Mark

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File Topic 1 4.2.1 ☐
File Topic 2 4.2.2 ☑
File Topic 3 7.5.19.5 ☐
File Topic 4 _____ ☐
File Topic 5 _____ ☐
Chron # _____